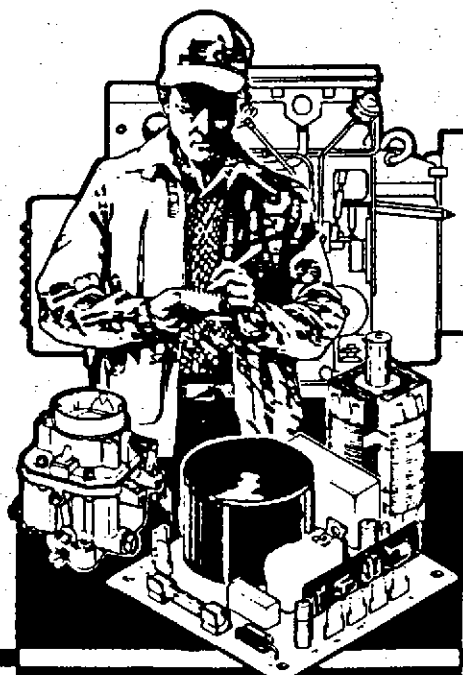


The following catalog
has gaps in its page
numbers, or doesn't
have any numbers.
We have chosen to
leave the page
numbering in the
order that Acrobat
assigns it.

Onan

Parts Manual

DB Series
DC Series
DM Series
900 -1250 kW
GEN SETS



Onan Service Parts

903-0208

8-88

Printed in U.S.A.



**Power
Generation**

Redistribution or publication of this document
by any means, is strictly prohibited.

General Information

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

The diagram shows a rectangular nameplate with two circular mounting holes at the top. The Onan logo is prominently displayed at the top. Below the logo is a large rectangular box labeled "MODEL AND SPEC NO.". Below that is a smaller rectangular box labeled "SERIAL NO.". The bottom right corner of the nameplate is shown as being bent or folded over.

M-1149

For handy reference, insert "YOUR" nameplate information in the spaces above.

TABLE OF CONTENTS

INTRODUCTION	2
INDEX	3
EXTERNAL ENGINE COMPONENTS - RIGHT SIDE	5
EXTERNAL ENGINE COMPONENTS - LEFT SIDE	7
ENGINE COOLANT HEATER (KIM TYPE).....	9
ENGINE COOLANT HEATER (WATLOW TYPE).....	11
GOVERNOR	12
TABLE OF CONTENTS FOR GENERATOR SECTION	31
GENERATOR - SPEC A	33
GENERATOR - BEGIN SPEC B	35
STATOR SECTION OF GENERATOR FRAME 6	37
STATOR SECTION OF GENERATOR FRAME 7	39
ROTOR SECTION OF GENERATOR FRAME 6	41
ROTOR SECTION OF GENERATOR FRAME 7	43
OVERSPEED SENSOR	44
OVERSPEED SWITCH	45
PERMANENT MAGNET EXCITER	46
TABLE OF CONTENTS FOR GENERATOR SET CONTROLS	51
GENERATOR SET CONTROL (WITH HOUSING ENCLOSURE)	53
ENGINE CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)	55
GENERATOR CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)..	57
CONTROL HEATER (SETS WITH HOUSING ENCLOSURE)	58
POTENTIAL TRANSFORMER (SETS WITH HOUSING ENCLOSURE	59
BLANK PAGE	60
WATTMETER (SETS WITH HOUSING ENCLOSURE)	61
GENERATOR SET CONTROL (WITHOUT HOUSING ENCLOSURE).....	63
ENGINE CONTROL COMPONENTS (SETS WITHOUT HOUSING ENCLOSURE)..	65
GENERATOR CONTROL COMPONENTS(SETS WITHOUT HOUSING ENCLOSURE)	67
BLANK PAGE	68

Introduction

This Parts Manual applies to the Standard Gen Sets Listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Set are determined by FACING the FRONT (Engine end) of the Set.

Set Data Table

MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
900.0D LA - */ # @	900,000 WATTS	1500 RPM	24 VDC
1000.0D LA - */ # @	1000,000 WATTS	1800 RPM	24 VDC
1100.0D MA - */ # @	1100,000 WATTS	1500 RPM	24 VDC
1200.0D MA - */ # @	1200,000 WATTS	1800 RPM	24 VDC
1250.0D MA - */ # @	1250,000 WATTS	1800 RPM	24 VDC

* - Voltage Codes follow Model Letter designations.

- Specification Number: Number 1 is Standard, all others indicate variations.

@ - Specification Letter: Letter advances (A to B, B to C, etc) with major manufacturing changes.

Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
H	347/600	60	4	3	
K	120/208	60	12	3	+
	127/220	60	12	3	
	139/240	60	12	3	
	240/416	60	12	3	
	254/440	60	12	3	
	277/480	60	12	3	
Y	110/190	50	12	3	+
	115/200	50	12	3	
	120/208	50	12	3	
	127/220	50	12	3	
	220/380	50	12	3	
	230/400	50	12	3	
	240/416	50	12	3	
	254/440	50	12	3	

+ - The Stators are Reconnectible.

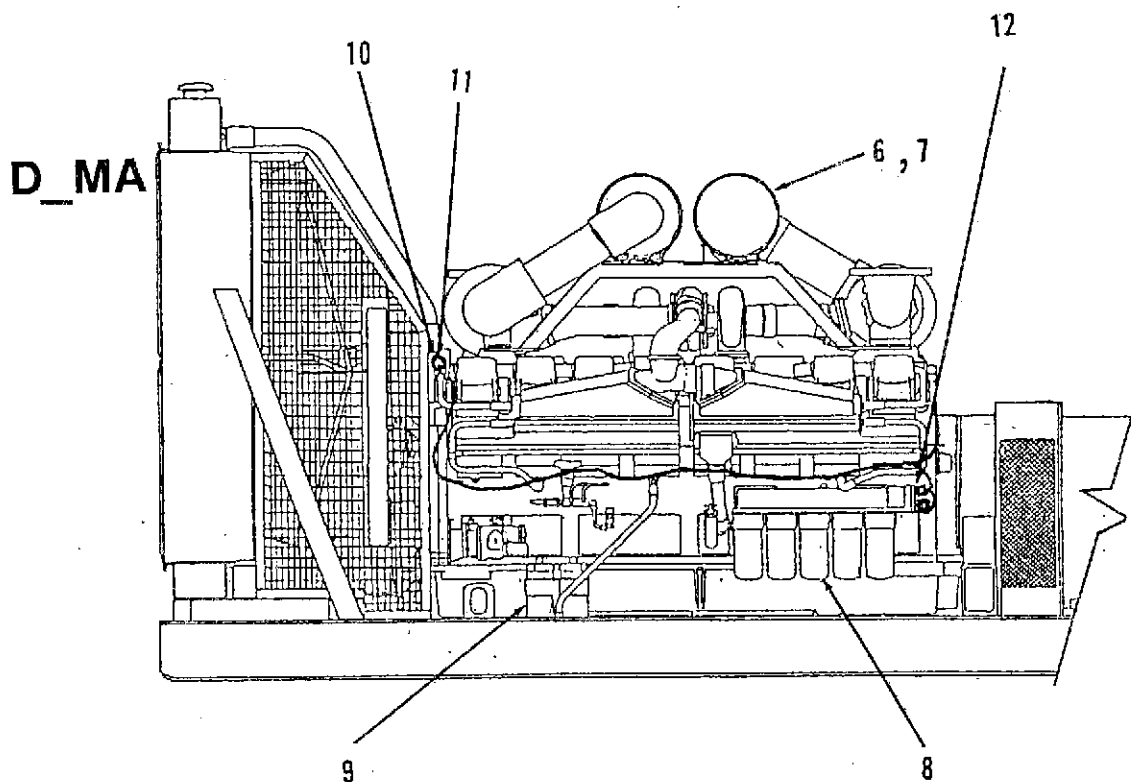
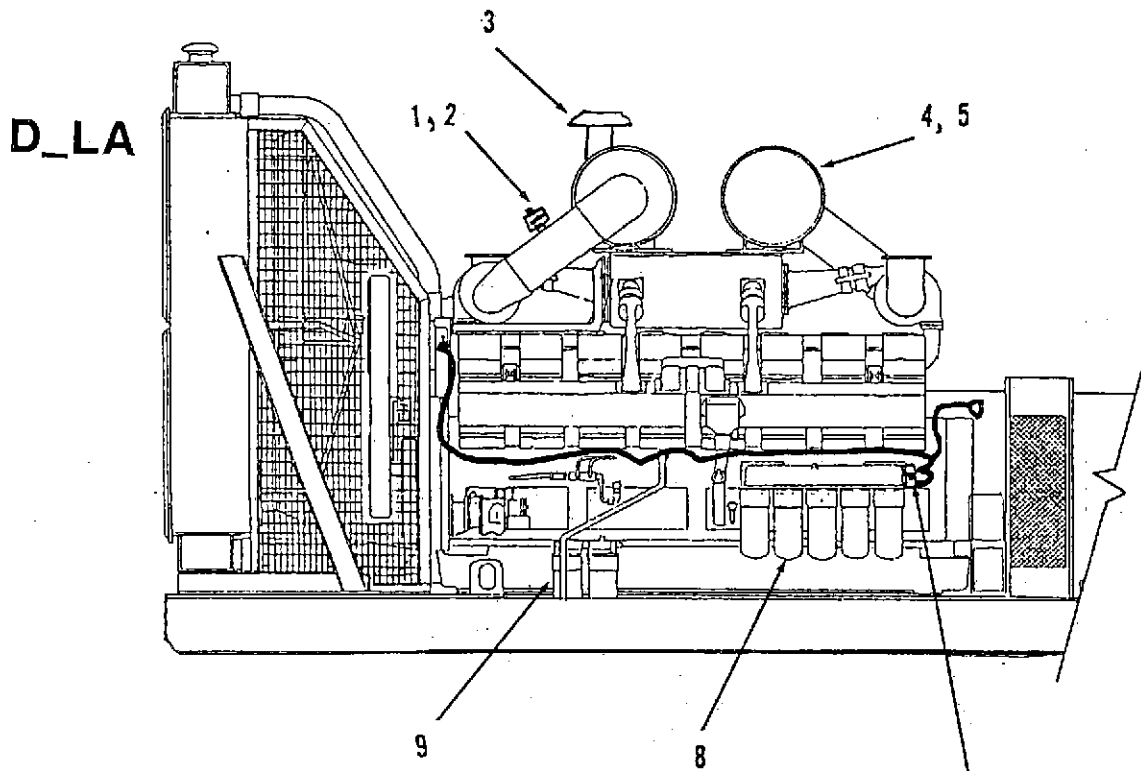
Engine Replacement Parts

The External Engine Components added or modified during the Generator Set Assembly have been identified in this Parts Manual. For Internal Engine Parts and External Engine Accessories not covered herein; refer to the applicable Cummins Engine Parts Catalog.

Index

Adapter, Generator 41,43
Ammeter - AC 57,67
Ammeter - DC 55,65
Bracket, End - Generator 37,39
Cable, Battery 7
Cap. Radiator 7
Control, Engine 55,65
Control, Generator 57,67
Control, Generator Set 53,63
Cooling System 7
Disk, Drive - Generator 41,43
Gauge, Pressure - Oil 55,65
Gauge, Temperature - Oil 55,65
Gauge, Temperature - Water 55,65
Generator 33,35
Harness, Wiring - Control (AC) 57,67
Harness, Wiring - Control (DC) 55,65
Harness, Wiring - Control To Engine 55,63
Harness, Wiring - Control to Generator 63
Harness, Wiring - Control to Governor 65
Harness, Wiring - Meter to Eng Monitor Bd 65
Harness, Wiring - Speed Control to Jack 65
Harness, Wiring - Fuse Block to Jack 67
Heater, Control 58
Housing, Control 53
Light, Indicator 55,65
Meter, Frequency 57,67
Meter, Tach 55,65
Meter, Time - Running 57,67
Radiator 7
Rotor, Exciter 41,43
Sender, Pressure - Oil 7
Sender, Temperature - Low Engine 5
Sender, Temperature - Water 5,7
Sender, Overspeed 44
Stator, Exciter 37,39
Switch, Overspeed 45
Switch, Pressure - Low Oil 7
Switch, Push - Reset/Panel 55,65
Switch, Push - Run/Stop/Remote 55,65
Switch, Rotary - Generator Control 57,67
Switch, Temperature - Hi Water 7
Switch, Temperature - Pre Water 7
Transformer, Current 53,63
Transformer, Potential 59
Voltmeter 55,57,65,67
Wattmeter 61

External Engine Components Right Side

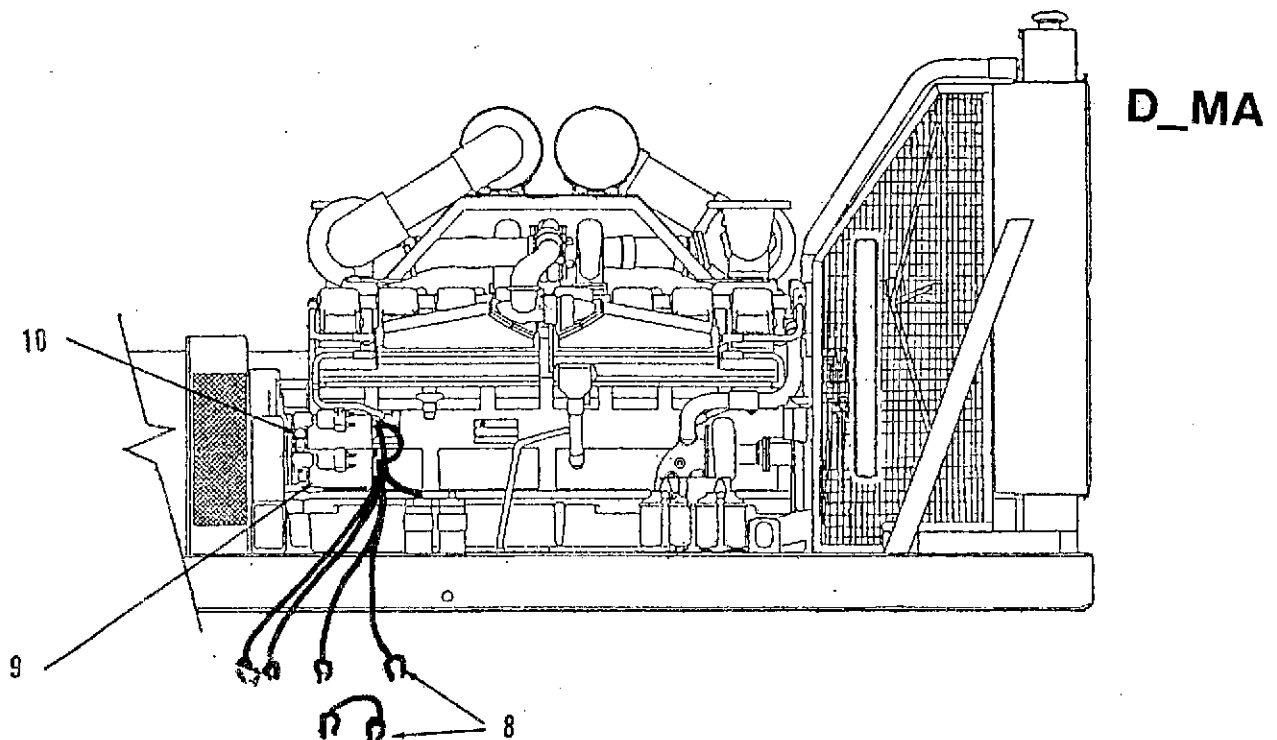
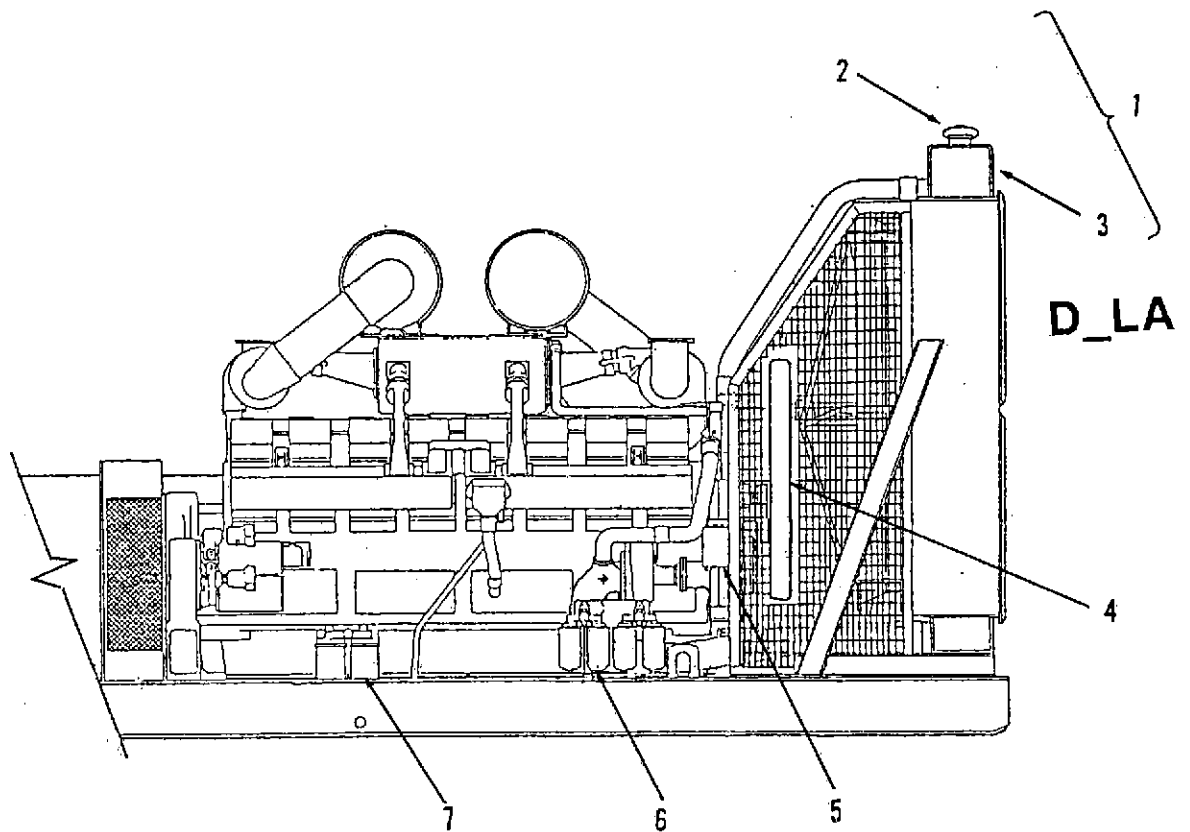


External Engine Components Right Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	140-2226	2	Indicator, Air Restriction (Includes Fitting)	8		3	Filter, Oil [LF670]
2	140-1260	2	Fitting, Male - Hex	9	149-2232	2	Filter, Fuel [FF202]
3			Cap, Air Cleaner	10			Switches & Bushings
	140-2343	4	For 6" Tube Inlet		309-0437	2	Switch, Thermostatic - Shutdown (S2)
	140-2364	2	For 8" Tube Inlet		505-0117	2	Bushing, Reducer - Flush (1/2NPT x 3/8NPT)
	140-2352	2	For 10" Tube Inlet		309-0269	1	Switch, Temperature - Low Engine Temperature (S4)
4			Air Cleaner (Includes Element) D LA		309-0436	2	Switch, Thermostatic - PreAlarm (S6)
	140-2264	2	Indoor		505-0131	2	Bushing, Reducer - Flush (3/4NPT x 3/8NPT)
	140-2363	2	Outdoor (8" Inlet Tube)				Sender & Bushing
	140-2345-02	2	Heavy Duty (Dual 6" Inlet Tubes)	11	193-0375	1	Sender, Temperature (E2)
5			Element - Air Cleaner D LA		505-0021	1	Bushing, Reducer (3/4NPT x 1/2NPT)
		2	Indoor & Outdoor [AF928M]	12			Switches, Sender & Nipple
		2	Heavy Duty Primary [AF1605M]		193-0244	1	Sender, Pressure - Oil (E1)
		2	Heavy Duty Safety [AF1604]		309-0169	1	Switch, Pressure - Oil (Shutdown) (S1)
6			Air Cleaner (Include Element) D MA		309-0272	1	Switch, Pressure - Oil (PreAlarm) (S5)
		2	Indoor (Disposable) [AH1106]		505-0104	1	Nipple, Pipe (1/8NPT x 1-1/2" LG)
	140-2349	2	Heavy Duty (10" Inlet Tube)		505-0763	1	Cross, Pipe (1/8NPT)
7			Element - Air Cleaner D MA		505-0028	1	Plug, Pipe - Square Head (1/8NPT)
		2	Heavy Duty Primary [AM# CD1830610826]	13	338-2170	1	Harness, Wiring - Engine
		2	Heavy Duty Safety [AM# CD1830610827]				

NOTE: [] Numbers in Brackets are Fleetwood Inc. Identification, except for the numbers prefixed with "AM#" which are Air Maze Corporation Identifiers.

External Engine Components Left Side



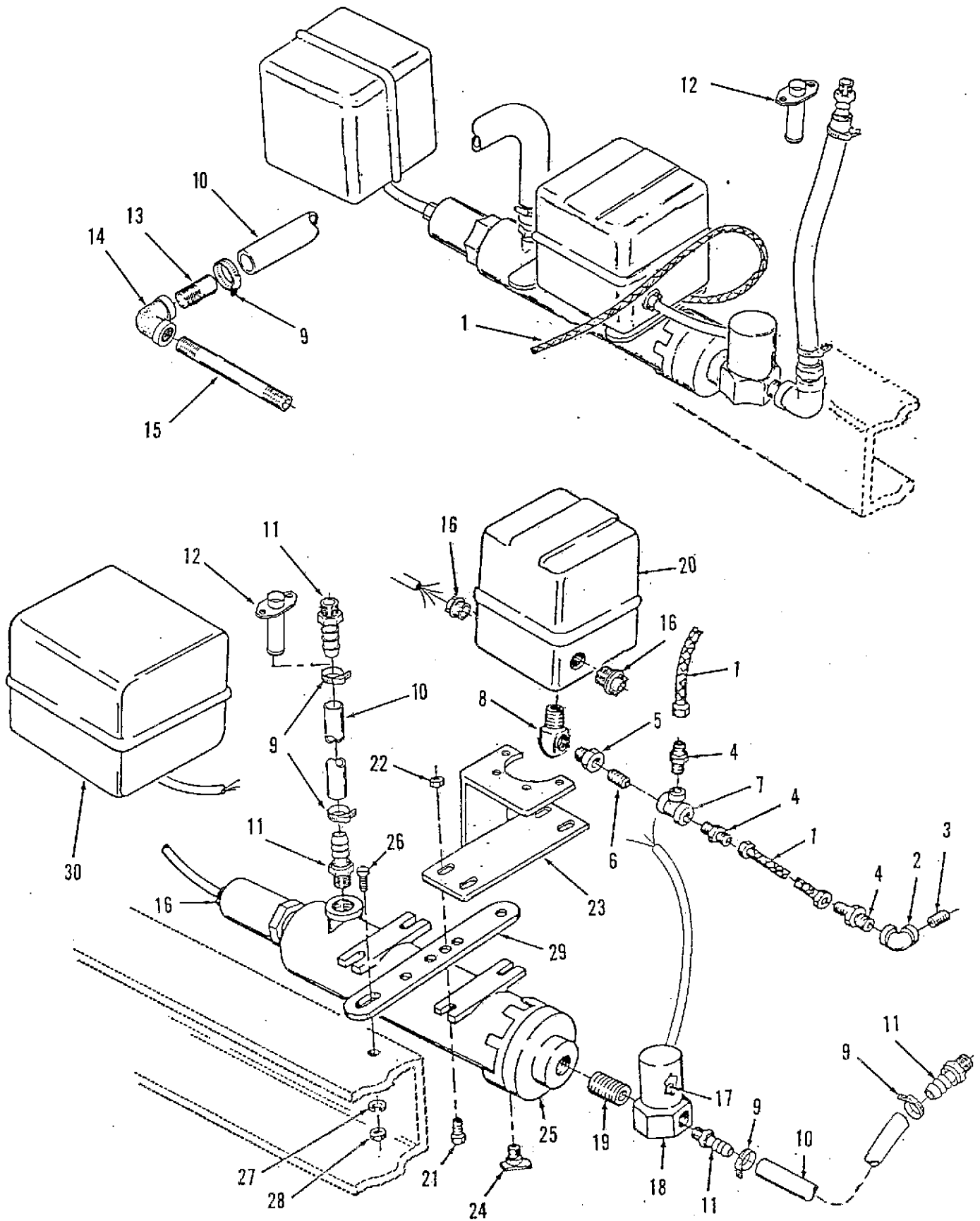
External Engine Components Left Side

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	Note 1	REF	Cooling System - Radiator	4		1	Belt, Drive - Fan (CEC#3003341)
	179-1259	1	Spec A				Alternator Charging System
	179-1277	1	O LA (BEARWARD # 53071-4P)	5			Alternator (35 Amp, 24 VDC)
			D MA (BEARWARD # 53061-5P)		191-1846-01	1	Pulley, Drive
			SPEC B		130-3317-01	1	Belt, Drive - Alternator
	179-1309	1	O LA (BEARWARD # 53071-4PA)		511-0163	2	Filter, Water - W/Corrosion
	179-1310	1	D MA (BEARWARD # 54071-5PA)	6	Note 2		Inhibiting Chemical DCA4
2			Cap, Radiator			4	Service for 90 & up Gal
	130-0523	1	7 PSI (For 2" Fill Tube)				Cooling System [WF2072]
	130-2981	1	7 PSI (For 3" Fill Tube)			4	Pre-Charging for 90 & up Gal
	130-3395	1	10 PSI (For 2" Fill Tube)				Cooling System [WF2075]
3			Radiator (Excludes Cap)			2	Filter, Oil - Bypass
			SPEC A	7	122-0526		Cables & Leads
	130-3288	1	O LA	8		2	Cable, Battery - Jumper
	130-3289	1	D MA		416-0473	4	Cable, Battery (44" Lg)
			SPEC B		416-0444	3	Lead, Electrical
	130-3405	1	O LA		416-0680	2	Starter, 24 VDC
	130-3406	1	D MA	9	191-1588		Switch, Magnetic
				10	307-2621-02	2	

NOTES:

- Cooling Systems Supplied by Bearward.
BEARWARD ENGINEERING LTD
Main Road, Far Cotton
Northampton, England NN4 9HU
USA Office: BEARWARD RADIATOR
Route 22 Box 187
Fleetwood, PA 19522
215-944-6017
- Replacement cartridges recommend and should be used in lieu of the Original Engine Factory Installed Item which contains a Pre-Charge amount of DCA or DCA4 Chemical. Replacement with Pre-charge Cartridge may overload the Cooling System and cause problems or failure of the Set.
- (CEC#) Numbers in Parens are Cummins Engine Company Identification.
- [] Numbers in Brackets are Fleetwood Inc. Identification.

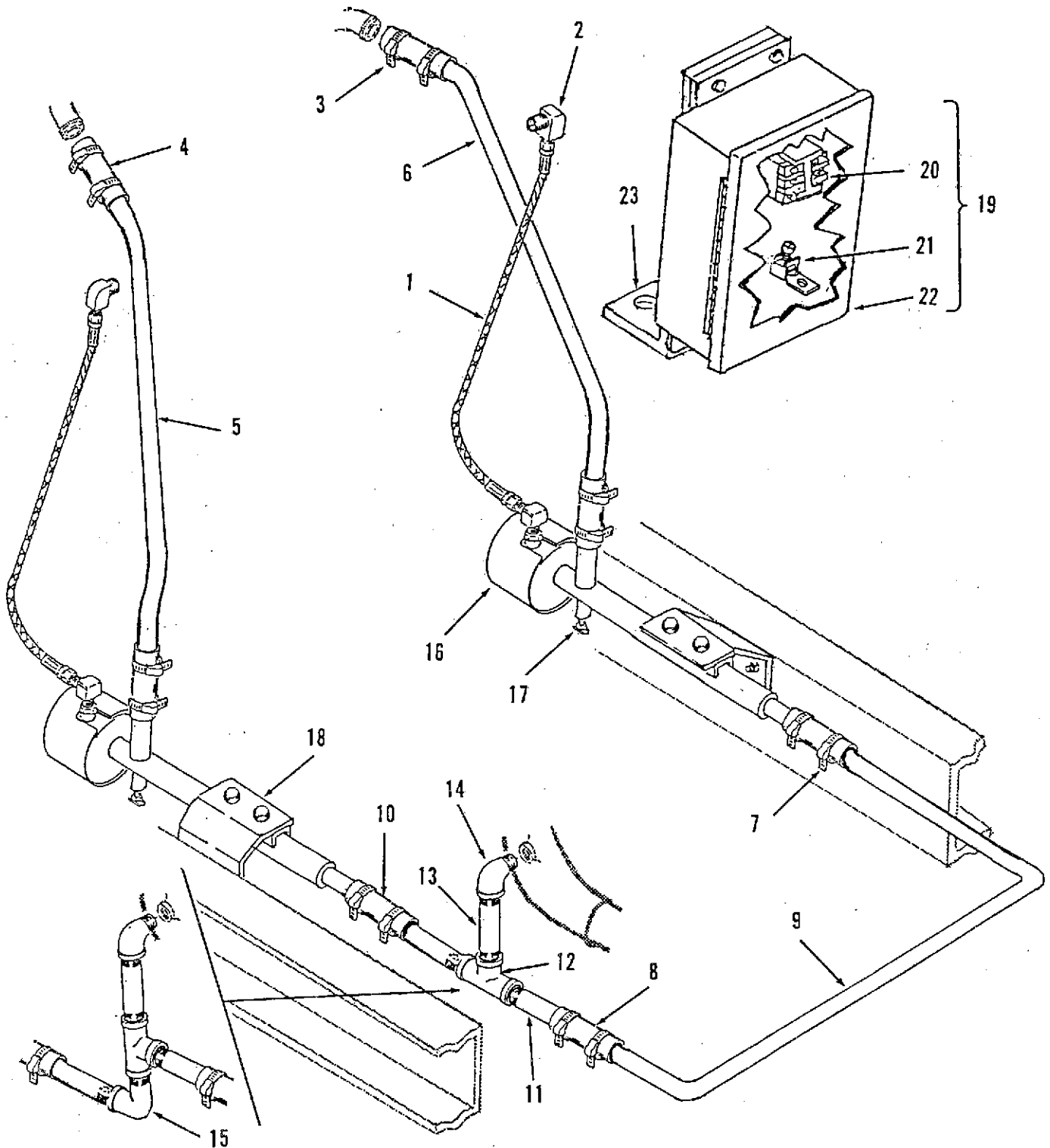
Dual Engine Coolant Heaters (Kim Type)



Dual Engine Coolant Heaters (Kim Type)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	501-0199	2	Line, Fuel - Flexible	19	505-0004	2	Nipple, Pipe - Close (3/4 NPT x 1-1/2")
2	505-0037	1	Elbow - 90 Degree (1/8 NPT)	20	309-0271	2	Switch, Pressure - Oil
3	505-0104	1	Nipple, Pipe - Close (1/8 NPT x 1-1/2")		812-0079	8	Attaching Parts for Switch Screw, Machine - Round Head (#8-32 x 1/2")
4	502-0193	4	Adapter, Hex - Pipe to Line		854-0007	8	Washer, Lock - ET (#8)
5	505-0007	2	Bushing, Reducer - Hex (1/4 NPT x 1/8 NPT)	21	800-0008	4	Screw, Cap - Hex Head (1/4-20 x 1-1/4")
6	505-0098	1	Nipple, Pipe - Close (1/8 NPT x 3/4")	22	870-0212	4	Nut, Self-locking - Hex (1/4-20)
7	505-0059	1	Tee, Pipe (1/8 NPT)	23	333-0224	2	Bracket, Support - Pressure Switch
8	502-0054	2	Elbow, Pipe - Street, 90 Degree (1/8 NPT)	24	504-0003	2	Cock, Drain
9	503-0398	8	Clamp, Hose	25			Heater, Electrical - Coolant
10	503-0249	AR	Hose, Rubber - Bulk (1"ID x 1-3/8"OD) [Sold in Multi Foot lengths, order as required]		333-0143	2	4000 Watt, 208 VAC - 1 Phase
11	505-0759	7	Adapter, Hose to Pipe		333-0164	2	4000 Watt, 208 VAC - 3 Phase
12	130-3200	2	Adapter, Hose with Flange (Used on some applications)		333-0138	2	4000 Watt, 240 VAC - 1 Phase
13	505-0324	1	Nipple, Pipe - Half (3/4 NPT x 2")		333-0190	2	4000 Watt, 240 VAC - 3 Phase
14	505-0132	1	Elbow, Pipe - Street, 90 Degree (3/4 NPT)		333-0150	2	4000 Watt, 277 VAC - 1 Phase
15	505-0438	1	Nipple, Pipe (3/4 NPT x 8")		333-0183	2	4000 Watt, 380 VAC - 1 Phase
16	331-0027	12	Clamp, Cable		333-0174	2	4000 Watt, 380 VAC - 3 Phase
17			Terminals		333-0161	2	4000 Watt, 480 VAC - 1 Phase
	323-0957	4	Nut, Wire		333-0144	2	4000 Watt, 480 VAC - 3 Phase
	332-0014	8	Lug, Terminal - Ring (#10)	26	821-0030	8	Screw, Self-locking - Hex Head (5/16-18 x 1-1/4")
	332-0149	8	Lug, Terminal - Ring (#8)	27	850-0045	8	Washer, Lock - Spring (5/16")
18			Switch, Thermostatic	28	862-0015	8	Nut, Hex (5/16-18)
	309-0490	2	100° - 120° Fahrenheit	29	130-1191	4	Bracket, Mounting
	309-0253	2	120° - 140° Fahrenheit	30			Contactor
					307-1460	2	230 VAC, 3 Pole
					307-1164	2	460 VAC, 3 Pole

Dual Engine Coolant Heaters (Watlow Type)



Dual Engine Coolant Heaters
(Watlow Type)

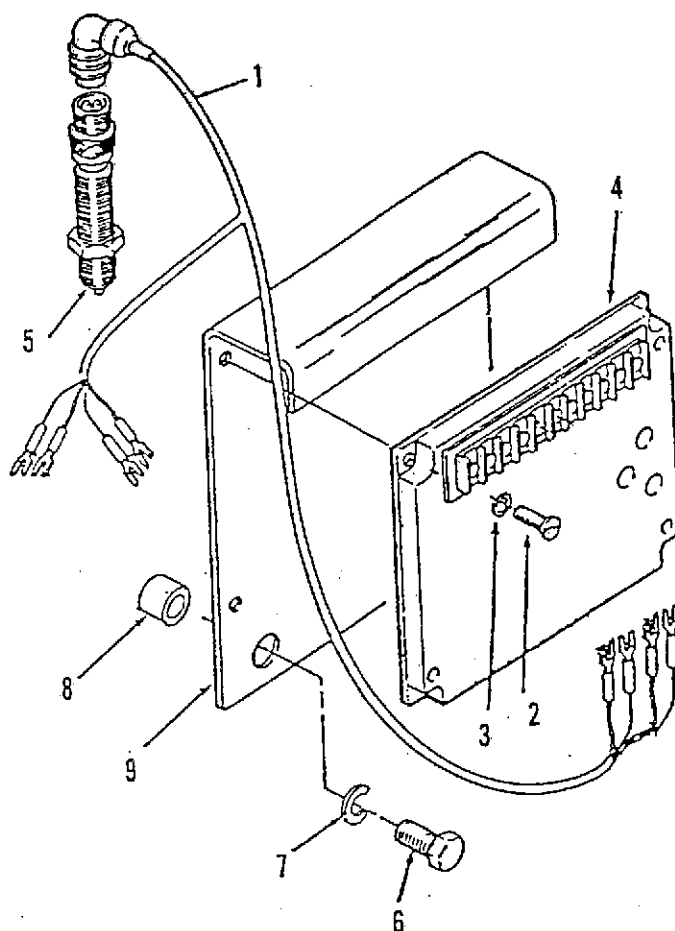
REF NO.	PART NO.	QTY USED	DESCRIPTION	REF NO.	PART NO.	QTY USED	DESCRIPTION
1		REF	Hose Assembly - Oil Pressure (Select as required)				Without Pressure Switch
	501-0537-03	2	32" Lg		333-0413-09	2	120V, 4000 Watt
	501-0537-07	2	50" Lg		333-0413-08	2	208V, 4000 Watt
	501-0537-26	2	60" Lg		333-0413-07	2	240V, 4000 Watt
					333-0413-10	2	480V, 4000 Watt
2	502-1043-01	4	Elbow, Pipe - Male, 90 DEG				Attaching Parts for Heater
3	503-1603	8	Clamp, Hose		800-0222	4	Screw, Cap - Hex Head (1/4-20 x 3/4")
4	503-1602	4	Hose, Rubber				
5	130-3339	1	Tube, Water		850-0101	4	Washer, Lock - Spring (1/4")
6	130-3340	1	Tube, Water				
7	503-1603	6	Clamp, Hose		402-0608	4	Isolator, Vibration
8		2	Hose, Rubber (CEC# 200517)		402-0609	4	Isolator, Vibration
9		1	Tube, Water (CEC# 3056251)	17	504-0003	2	Cock, Drain (1/4 NPT)
10		1	Hose, Rubber (CEC# 3009805)	18	130-3189	2	Bracket, Mounting - Heater
11		2	Nipple, Pipe - Half (CEC# 153409)				Attaching Parts for Bracket
					800-0210	8	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
12		1	Tee, Pipe (CEC# 3056256)				
13		1	Nipple, Pipe (CEC# 5912C)		850-0103	8	Washer, Lock - Spring (3/8")
14		1	Elbow, Pipe - Street - 90° (CEC# 5906C)		871-0028	8	Nut, Hex - Brass (3/8-16)
15		1	Elbow, Pipe - Street - 90° (CEC# 3056257) (Not used all Installations)	19		2	Switch, Control - Heater (Includes Contactor, Ground Lug and Box)
16		REF	Heater, Electrical - Coolant (Includes Thermostat, Drain Cock, Mounting Nuts and may or may not include pressure switch) With Pressure Switch	20		1	Contactor (50 AMP, 3 Pole, SPST, 120 VAC Coil) [Wat# 198-0-20-3]
	333-0389-06	2	120V, 4000 Watt			1	Lug, Ground [Wat# 191-16-6-1]
		2	208V, 4000 Watt		21	1	Box, Electrical [Wat# 303-62-29-29]
	333-0389-02	2	240V, 4000 Watt		22	1	
	333-0389-04	2	480V, 4000 Watt		23	2	Bracket, Mounting - Box
							Attaching Parts for Brackets
					800-0222	8	Screw, Cap - Hex Head (1/4-20 x 3/4")
					850-0101	8	Washer, Lock - Spring (1/4")
					862-0031	8	Nut, Hex (1/4-20)

NOTES:

1. (CEC#) Numbers in Parens are Cummins Engine Company Identification.
2. [WAT#] Numbers in Brackets are Watlow Industries Inc. Identification; Manufacturers of Heaters and Controls.

USA OFFICE
Watlow Industries Inc.
Div. of Watlow Electric Co.
Hannibal, Mo.

Electric Governor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-1777	1	Harness, Wiring
2	813-0103	4	Screw, Machine - Round Head (#10-32 x 3/4")
3	870-0131	4	Nut, Self-locking, Hex (#10-32)
4	151-0682	1	Controller, Governor

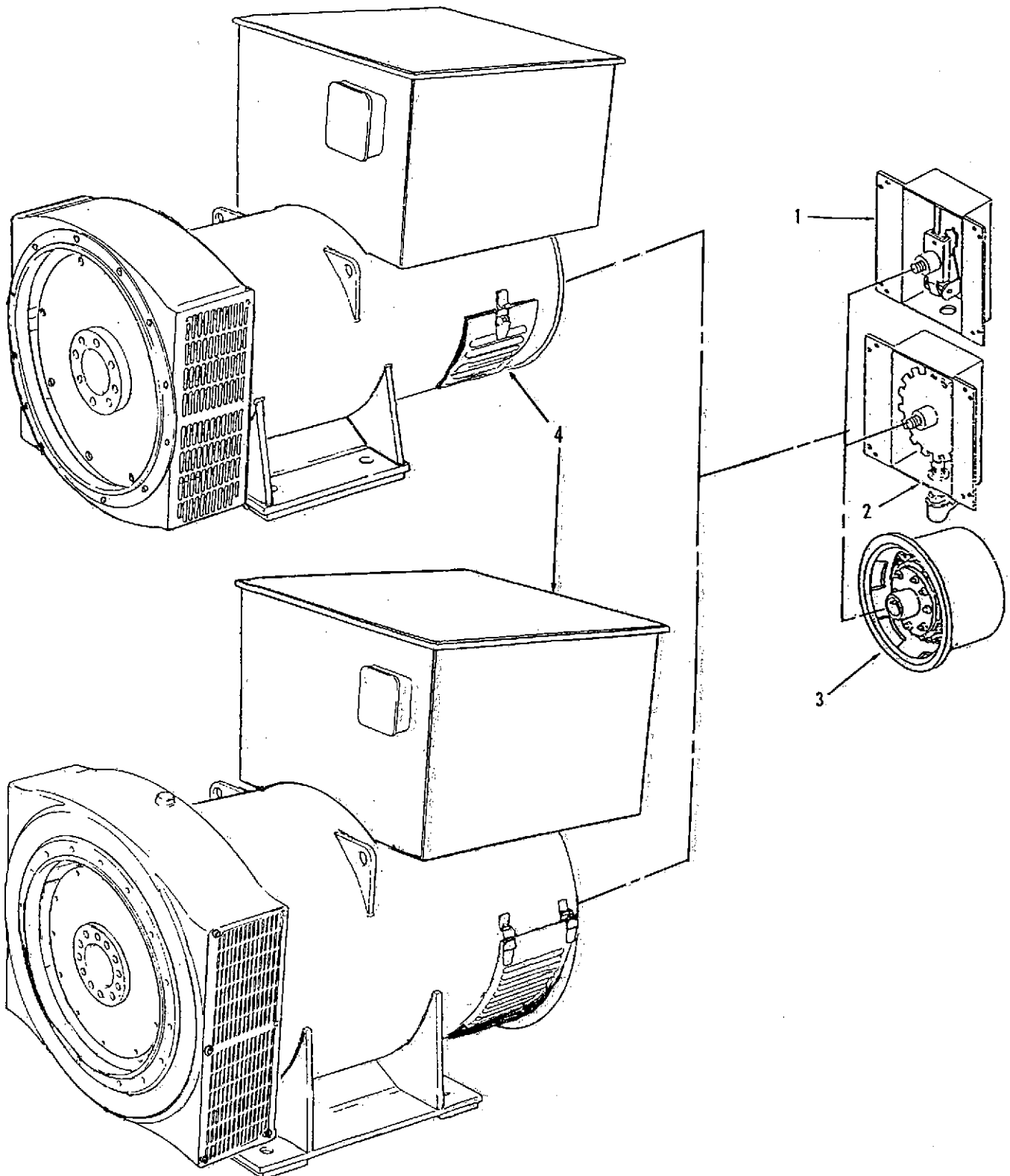
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	151-0411	1	Pickup, Magnetic
6	800-0151	2	Screw, Cap - Hex Head (3/4-10 x 1")
7	850-0079	2	Washer, Lock - Spring (3/4")
8	370-4040	2	Spacer, Sleeve
9	150-2007	1	Bracket, Mounting

TABLE OF CONTENTS

GENERATOR SECTION

GENERATOR - Spec A	33
GENERATOR - Spec B	35
STATOR SECTION - SAE 0 / SAE 18, Frame 6	37
STATOR SECTION - SAE 0 / SAE 18, Frame 7	39
ROTOR SECTION - SAE 0 / SAE 18, Frame 6	41
ROTOR SECTION - SAE 0 / SAE 18, Frame 7	43
OVERSPEED SENSOR	44
OVERSPEED SWITCH	45
PERMANENT MAGNET EXCITER	46

Generator Spec A

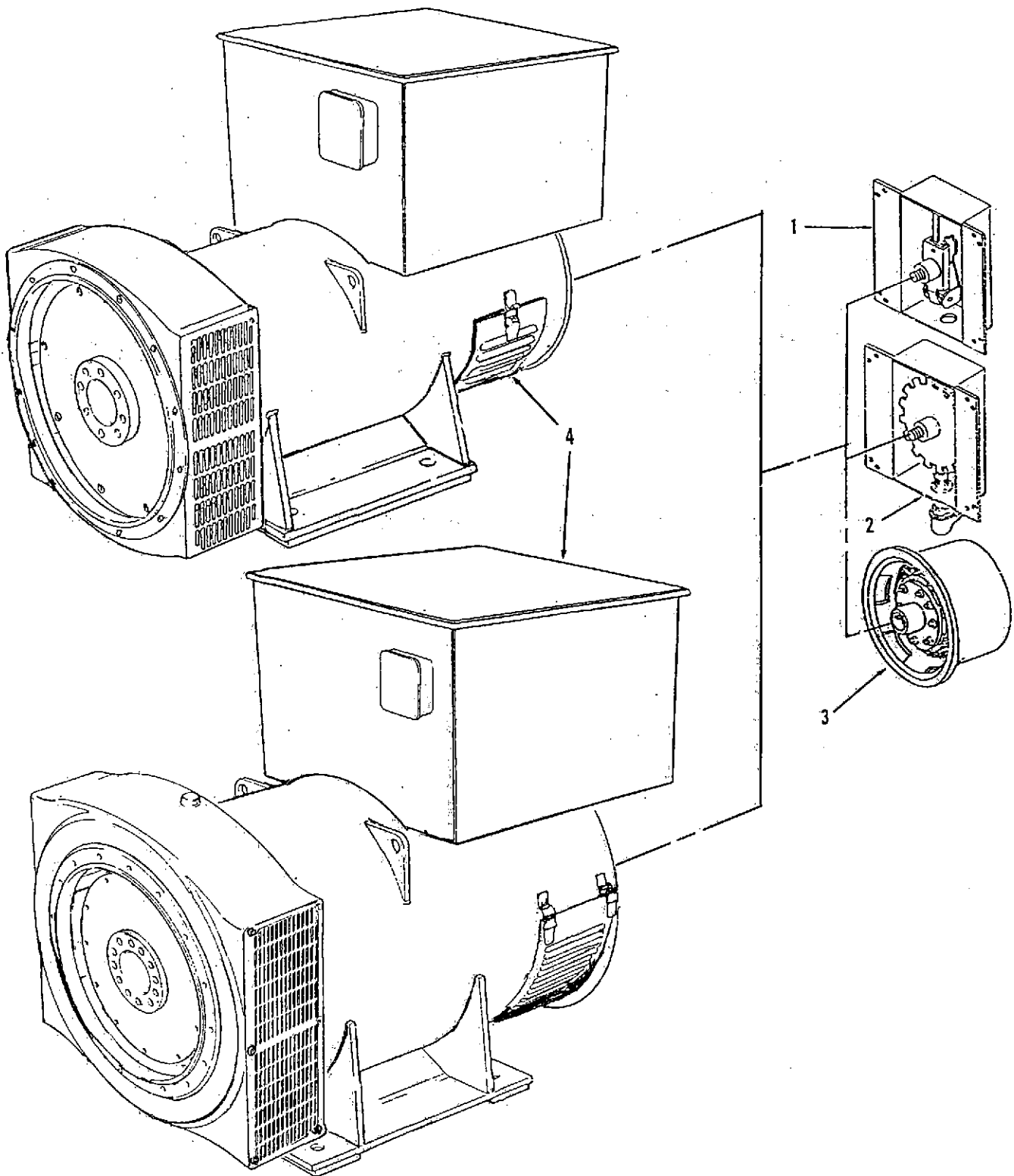


Generator Spec A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Module, Overspeed Switch (See Separate Page for Parts)	4	Note 1		Generator - Frame 6 & 7 (See Separate pages for Parts)
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)				Attaching Parts Generator to Chassis
2		1	Module, Overspeed Sensor (See Separate Page for Parts)	800-0578	4		Screw, Cap - Hex Head (1 1/4-7 x 3-1/2")
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)	850-0092	4		Washer, Lock - Spring (1-1/4")
				526-0093	4		Washer, Flat (1-1/4")
3		1	Module, Perm. Magnet Exciter (See Separate Page for Parts)	862-0017	4		Nut, Hex (1 1/4-7)
	249-0298	4	Attaching Parts Screw, Cap - Hex Head (M8 x 16mm)	800-0576	16		Adapter to Flywheel Housing Screw, Cap - Hex Head, Gr 8 (1/2-13 x 3/4")
	249-0218	4	Washer, Lock (M8)	850-0060	16		Washer, Lock - Spring (1/2")
	249-0315	4	Clamp, Retaining	800-0530	6		Drive Disc to Flywheel Screw, Cap - Hex Head, Gr 8 (5/8-11 x 1-1/4")

Note 1: For Replacement Generator please supply the complete Gen Set nameplate and Generator nameplate data.

Generator
Begin Spec B



Generator Begin Spec B

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1		1	Module, Overspeed Switch (See Separate Page for Parts)	4	Note 1		Generator - Frame 6 & 7 (See Separate pages for Parts)
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)				Attaching Parts Generator to Chassis
2		1	Module, Overspeed Sensor (See Separate Page for Parts)	800-0273	4		Screw, Cap - Hex Head (1 1/4-7 x 4")
	821-2045	4	Attaching Parts Screw, Self-locking - Hex Hd (M8 x 1.25 x 16mm)	850-0092	4		Washer, Lock - Spring (1-1/4")
3		1	Module, Perm. Magnet Exciter (See Separate Page for Parts)	526-0093	4		Washer, Flat (1-1/4")
	249-0298	4	Attaching Parts Screw, Cap - Hex Head (M8 x 16mm)	862-0017	4		Nut, Hex (1 1/4-7)
	249-0218	4	Washer, Lock (M8)	800-0576	16		Adapter to Flywheel Housing Screw, Cap - Hex Head, Gr 8 (1/2-13 x 3/4")
	249-0315	4	Clamp, Retaining	850-0060	16		Washer, Lock - Spring (1/2")
				800-0530	6		Drive Disc to Flywheel Screw, Cap - Hex Head, Gr 8 (5/8-11 x 1-1/4")

Note 1: For Replacement Generator please supply the complete Gen Set nameplate and Generator nameplate data.

This exploded view diagram illustrates the assembly of a vacuum tube radio receiver. The components are numbered as follows:

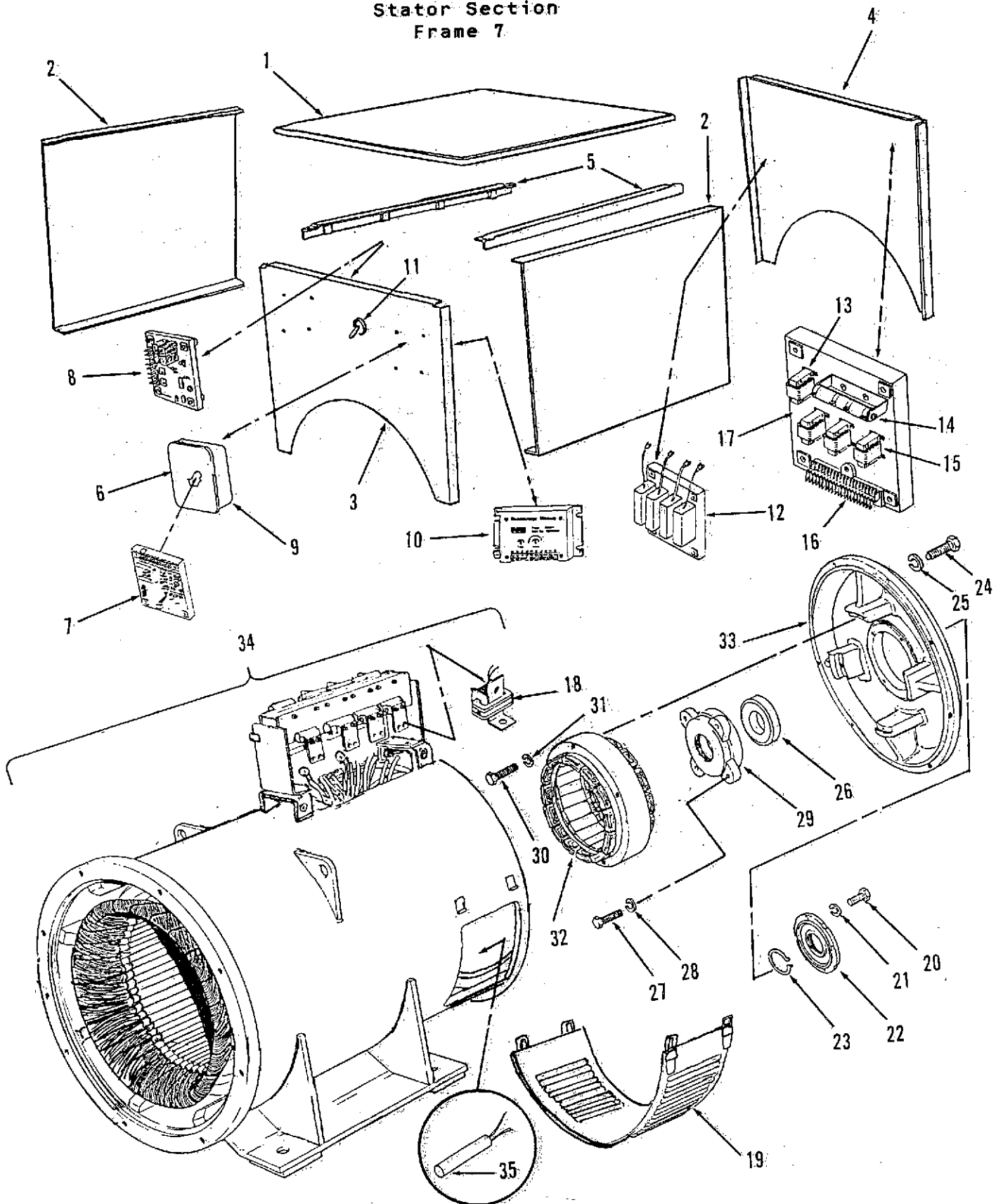
- 1, 2, 3, 4, 5:** Various electronic components including a power transformer, a 6X4 vacuum tube, a 6AR5 vacuum tube, a 6AV6 vacuum tube, and a 6X5 vacuum tube.
- 6, 7, 8, 9:** Rectangular panels or covers for the chassis.
- 10:** A curved metal chassis or mounting plate.
- 11, 12, 13, 14:** Small electronic components, likely capacitors or resistors.
- 15, 16, 17, 18, 19, 20, 21, 22, 23:** Mechanical components including a speaker grille, a speaker cone, a speaker magnet, a speaker frame, a speaker basket, a speaker terminal, a speaker screw, a speaker nut, a speaker washer, a speaker gasket, a speaker seal, a speaker clip, a speaker bracket, a speaker screw, a speaker nut, a speaker washer, and a speaker gasket.
- 24, 25:** A large circular component, likely a speaker or a large capacitor.
- 26:** A small cylindrical component, likely a resistor or a small capacitor.

**Generator
Stator Section
Frame 6**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0631	1	Lid	11	249-0243	4	Screw, Cap - Hex Head (M10 x 30mm)
			Attaching Parts	12	249-0202	4	Washer, Lock - Spring (M10)
	249-0304	4	Screw, Captive	13	249-0510	1	Cap, Bearing - Outer
2			Regulator, Voltage	14	249-0447	1	Circlip
	305-0770	1	Standard 1 Phase u/w PMG	15	249-0204	8	Screw, Cap - Hex Head (M12 x 40mm)
	305-0778	1	3 Phase (Used with PMG Exciter & 3 Phase Sensing Module)	16	249-0205	8	Washer, Lock - Spring (M12)
	305-0803	1	Manual	17	249-0448	1	Bearing, Ball
			Attaching Parts	18	249-0245	4	Screw, Cap - Hex Head (M10 x 50mm)
	249-0398	4	Pillar, Threaded	19	249-0202	4	Washer, Lock - Spring (M10)
3	249-0564	1	Module, 3 Phase Sensing	20	249-0509	1	Cap, Bearing - Inner
			Attaching Parts	21	249-0445	6	Screw, Cap - Hex Head (M6 x 85mm)
	249-0398	4	Pillar, Threaded	22	249-0212	6	Washer, Lock - Spring (M6)
4	249-0395	1	Box	23	249-0470	1	Stator, Exciter
5	300-3209-02	1	Module, Frequency Detection	24	249-0527	1	Bracket, End
			Attaching Parts	25	NFS	1	Stator, Generator (Includes Terminal Studs and Links)
	249-0295	4	Screw, Cap - Hex Head (M5 x 35mm)				Attaching Parts Stator to Adapter
	249-0288	4	Washer, Plastic (M5)		249-0204	8	Screw, Cap - Hex Head (M12 x 40mm)
	249-0287	4	Nut, Hex - Nylon (M5)		249-0205	8	Washer, Lock - Spring (M12)
6	NFS	1	Lid				Heater, Electrical - Replacement
7	NFS	2	Panel, Side	26	249-0621	1	70 Watt, 120 VAC
8	NFS	1	Panel, Front		249-0622	1	70 Watt, 240 VAC
9	NFS	1	Panel, Rear				
10	249-0513	2	Grille, Inlet - Air				

NFS - Not For Sale

Generator Stator Section Frame 7

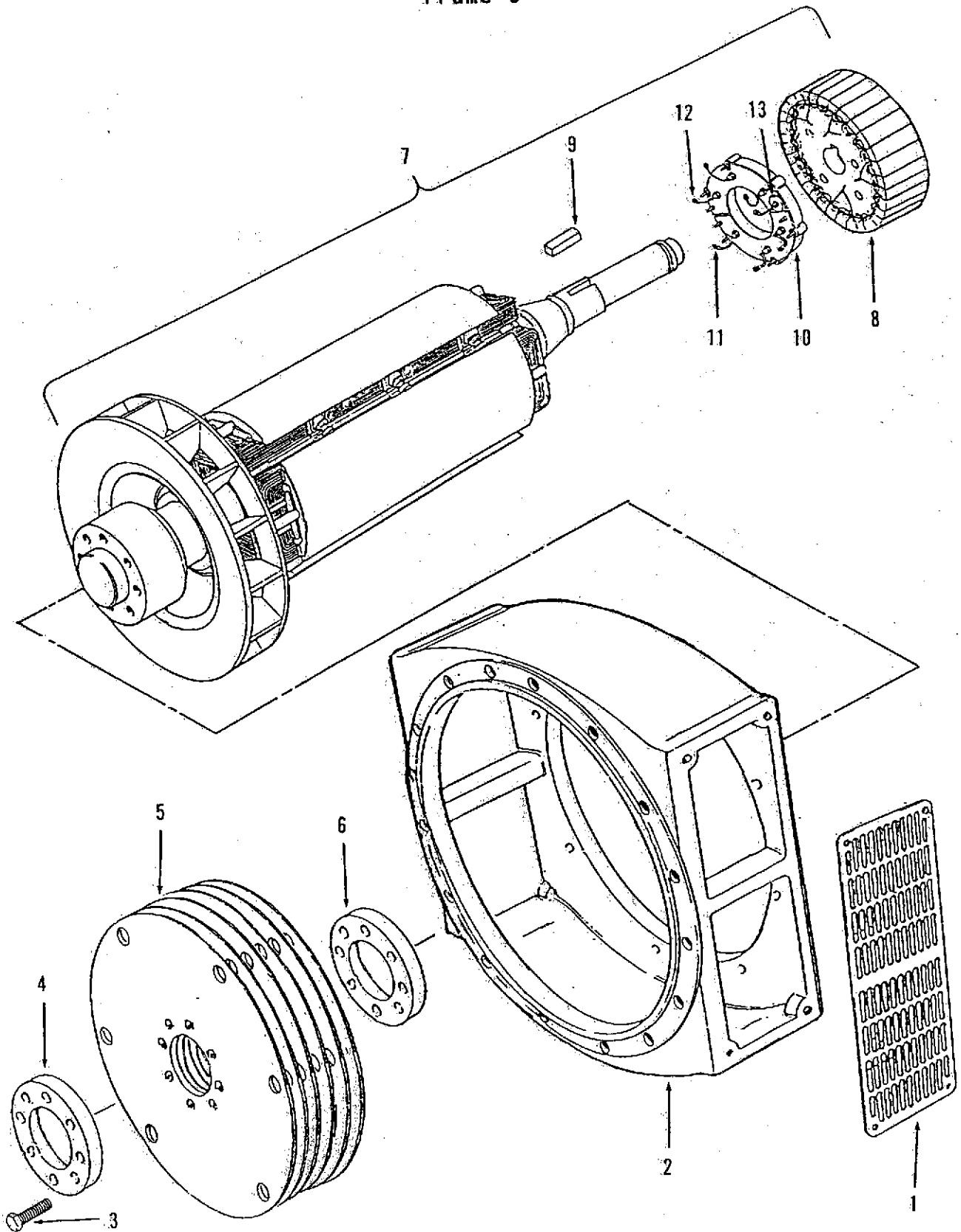


**Generator
Stator Section
Frame 7**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	NFS	1	Lid	17	249-0424	1	Panel, Terminal Block Mtg
2	NFS	2	Panel, Side	18			Transformer, Current
3	NFS	1	Panel, Front	302-1852-01	3		Used on Standard Voltage Generator
4	NFS	1	Panel, Rear	302-1852-03	3		Used on Medium Voltage Generator
5	NFS	2	Bracket, Angle				
6	249-0425	2	Lid	19	249-0583	2	Grille, Inlet - Air
	249-0304	8	Attaching Parts	20	249-0243	4	Screw, Cap - Hex Head (M10 x 30mm)
7			Screw, Captive	21	249-0202	4	Washer, Lock - Spring (M10)
	305-0770	1	Regulator, Voltage	22	249-0510	1	Cap, Bearing - Outer
	305-0778	1	Standard	23	249-0447	1	Circlip
			3 Phase (Used with	24	249-0204	8	Screw, Cap - Hex Head (M12 x 40mm)
	305-0803	1	3 Phase Sensing Module)	25	249-0205	8	Washer, Lock - Spring (M12)
			Manual	26	249-0448	1	Bearing, Ball
	249-0398	4	Attaching Parts	27	249-0245	4	Screw, Cap - Hex Head (M10 x 50mm)
8	302-3278	1	Pillar, Threaded	28	249-0202	4	Washer, Lock - Spring (M10)
			Module, 3 Phase Sensing	29	249-0509	1	Cap, Bearing - Inner
	249-0398	4	Attaching Parts	30	249-0438	6	Screw, Cap - Hex Head (M6 x 85mm)
9	249-0395	2	Pillar, Threaded	31	249-0218	6	Washer, Lock - Spring (M6)
10	249-0486	1	Box	32	249-0470	1	Stator, Exciter
			Module, Overvoltage	33	249-0471	1	Bracket, End
	249-0295	4	Attaching Parts	34	NFS	1	Stator, Generator (Includes Terminal Studs and Links)
			Screw, Cap - Hex Head (M5 x 35mm)				Attaching Parts Stator to Adapter
	249-0288	4	Washer, Plastic (M5)	249-0204	8		Screw, Cap - Hex Head (M12 x 40mm)
	249-0287	4	Nut, Hex - Nylon (M5)	249-0205	8		Washer, Lock - Spring (M12)
11	249-0449	1	Switch	249-0621	1		Heater, Elect - Replacement
12	249-0569	1	RFI Suppressor Assy	249-0622	1		70 Watt, 120 VAC
13	302-1851	1	Choke				70 Watt, 240 VAC
14	354-0031	1	Resistor, Adjustable				
15			Transformer				
	249-0504	3	Voltage Sensing (Used on Standard Voltage Gens)				
	302-1876	3	Isolation (Used on Medium Voltage Generators)				
16	249-0289	3	Block, Terminal				

NFS - Not For Sale

Generator
Rotor Section
SAE 0/ SAE 18
Frame 6

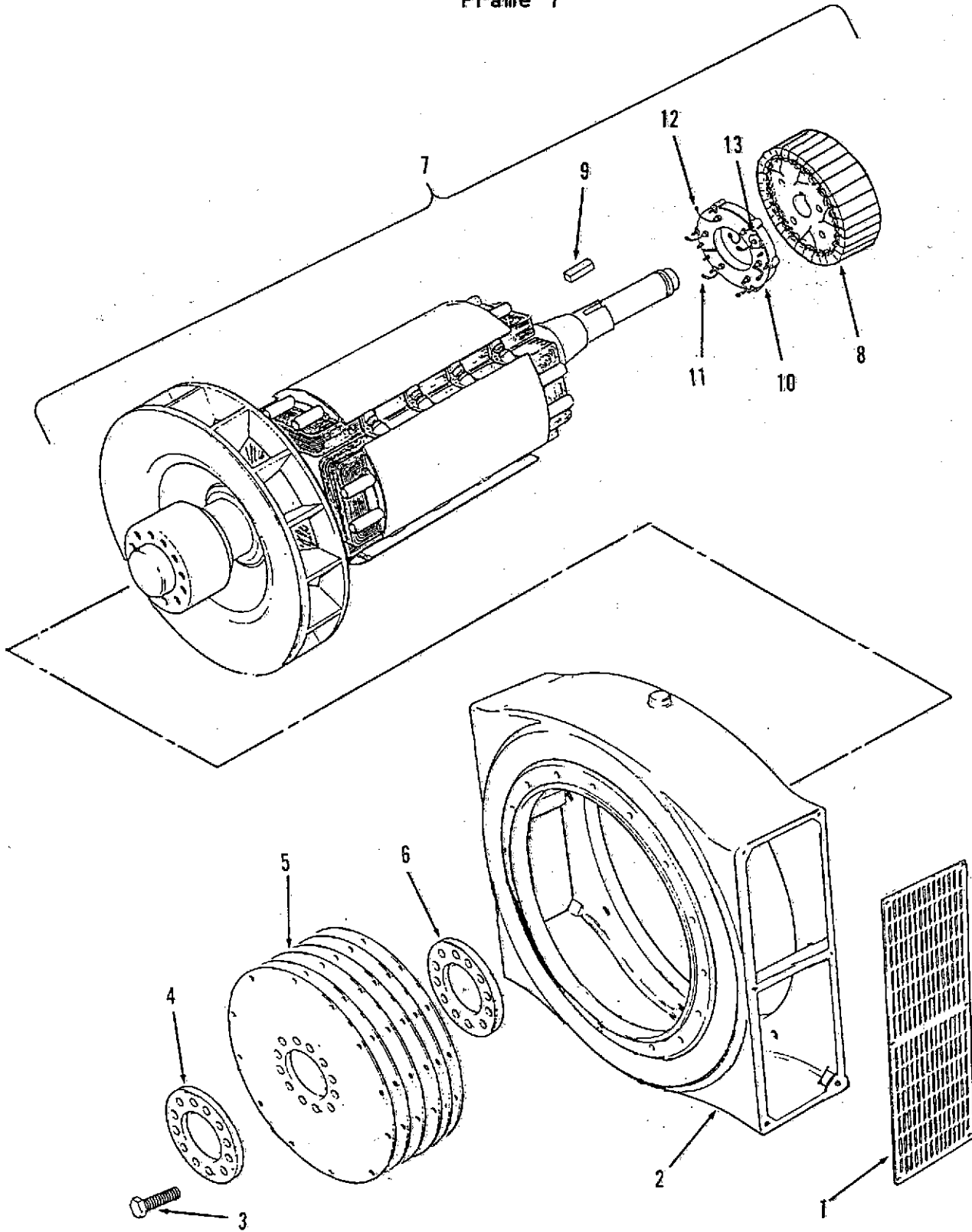


**Generator
Rotor Section
SAE 0/ SAE 18
Frame 6**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0534	2	Screen, Air - Adapter	7	NFS	1	Rotor, Generator (Includes
	249-0294	12	Attaching Parts				Exciter, Key, and Rectifier
			Screw, Cap - Hex Head	8	249-0512	1	Assemblies)
			(M5 x 12mm)				Rotor, Exciter (Does Not
	249-0307	12	Washer, Lock - Spring (M5)	9	249-0271	1	Include Rectifier Assy)
	249-0365	12	Washer, Flat (M5)	10	249-0237	1	Key
2	249-0533	1	Adapter, Generator SAE 0				Rectifier Assy
3	249-0437	8	Screw, Cap - Hex Head				(Includes Diodes)
			(M20 x 75mm)	11	249-0239	3	Diode, Forward Polarity
4	249-0230	1	Plate, Pressure	12	249-0238	3	Diode, Reverse Polarity
5	249-0276	6	Disc, Drive SAE 18	13	249-0240	1	Varister
6	249-0277	1	Spacer				

NFS - Not For Sale

Generator
Rotor Section
SAE 0/ SAE 18
Frame 7

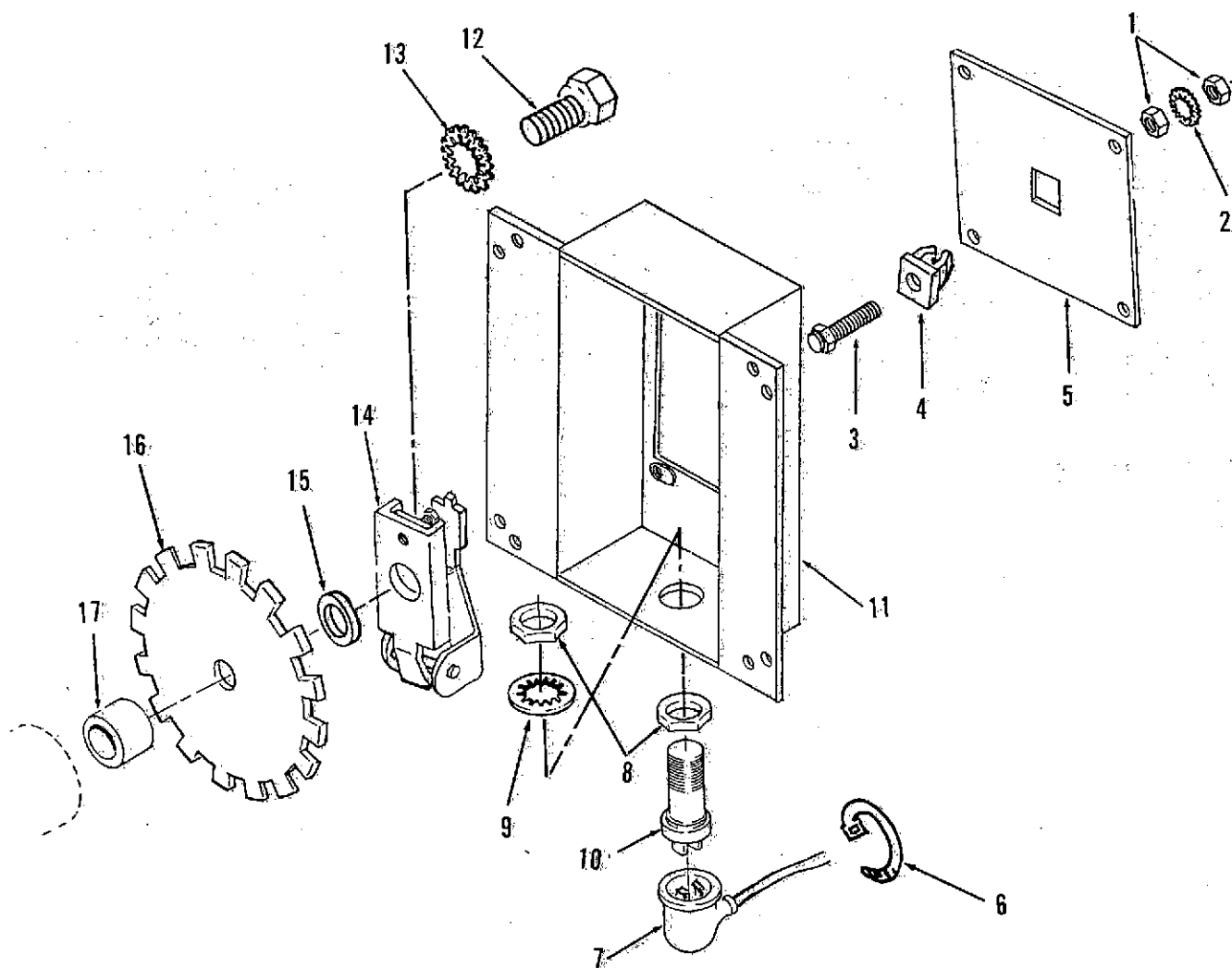


**Generator
Rotor Section
SAE 0/ SAE 18
Frame 7**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0482	2	Screen, Air - Adapter	7	NFS	1	Rotor, Generator (Includes
	249-0294	12	Attaching Parts Screw, Cap - Hex Head (M5 x 12mm)	8	249-0503	1	Exciter, Key, and Rectifier Assemblies)
	249-0307	12	Washer, Lock - Spring (M5)	9	249-xxxx	1	Rotor, Exciter (Does Not
	249-0365	12	Washer, Flat (M5)	10	249-0237	1	Include Rectifier Assy)
2	249-0481	1	Adapter, Generator SAE 0	11	249-0239	3	Key
3	249-0444	8	Screw, Cap - Hex Head (M24 x 75mm)	12	249-0238	3	Rectifier Assy
4	249-0467	1	Plate, Pressure	13	249-0566	1	(Includes Diodes)
5	249-0469	6	Disc, Drive SAE 18				Diode, Forward Polarity
6	249-0468	1	Spacer				Diode, Reverse Polarity
							Varister

NFS - Not For Sale

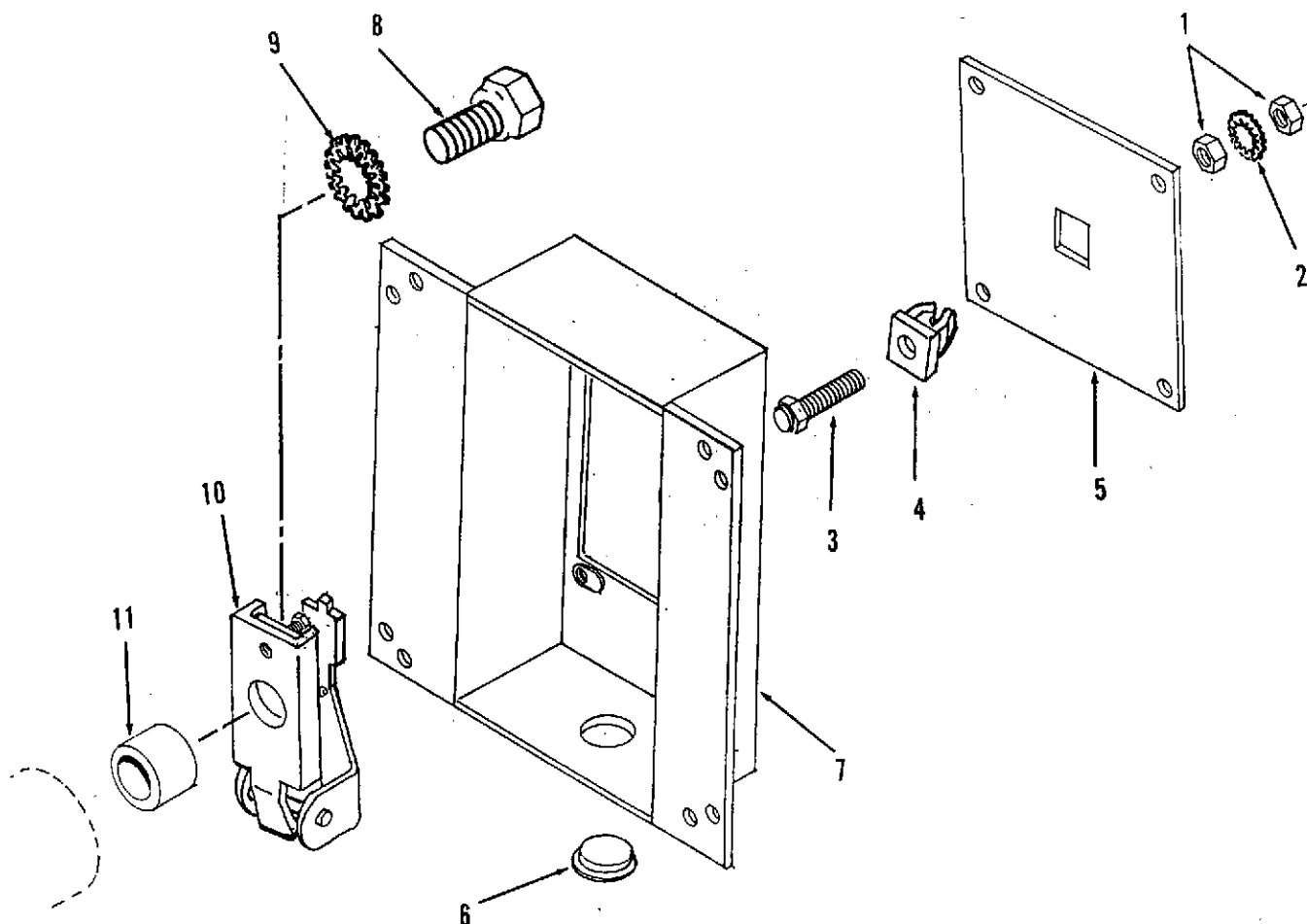
Generator Overspeed Sensor



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)
2	853-0013	1	Washer, Lock - EIT (1/4")
3	150-0723	1	Point, Overspeed
4	870-0250	1	Nut, Insulated
5	150-2206	1	Plate, Mounting
	821-0005	4	Screw, Self-locking - Hex (#10-32 x 1/2")
6	332-1445	5	Tie, Cable
7	338-2189-02	1	Harness, Wiring
8	868-0011	2	Nut, Jam - Hex (3/4-16)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	854-0031	1	Washer, Lock - IT (3/4")
10	150-1406	1	Sensor, Speed
11	150-2207	1	Cover, Overspeed Switch
12	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
13	856-0010	1	Washer, Lock - EIT (3/8")
14	150-0956	1	Switch, Overspeed
15	370-4031	1	Spacer, Sleeve
16	150-2204	1	Wheel - Speed Sensor
17	370-4032	1	Spacer, Sleeve

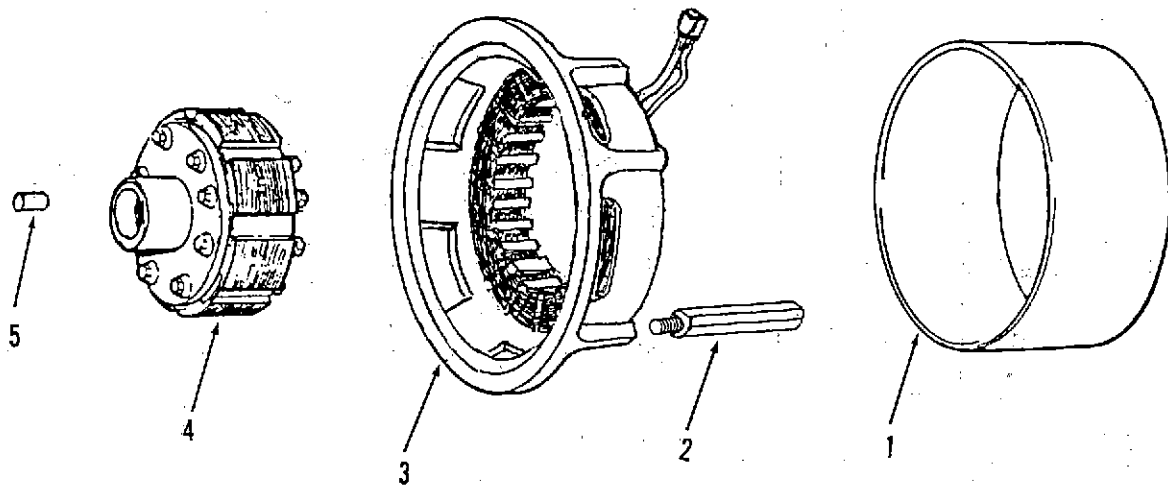
Generator Overspeed Switch



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	862-0001	2	Nut, Hex (1/4-20)
2	853-0013	1	Washer, Lock - EIT (1/4")
3	150-0723	1	Point, Overspeed
4	870-0250	1	Nut, Insulated
5	150-2206 821-0005	1 4	Plate, Mounting Screw, Self-locking - Hex (#10-32 x 1/2")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	517-0136	1	Plug, Plastic
7	150-2207	1	Cover, Overspeed Switch
8	718-1058	1	Screw, Cap - Hex Head (M10 x 1.5 x 45mm)
9	856-0010	1	Washer, Lock - EIT (3/8")
10	150-0956	1	Switch, Overspeed
11	370-4032	1	Spacer, Sleeve

Generator Permanent Magnet Exciter



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	249-0497	1	Cover
	249-0294	3	Attaching Parts for Cover
			Screw, Cap - Hex Head
			(M5 x 12mm)
	249-0307	3	Washer, Lock (M5)
2	249-0496	3	Pillar, Threaded
3	249-0426	1	Stator, Exciter with Frame

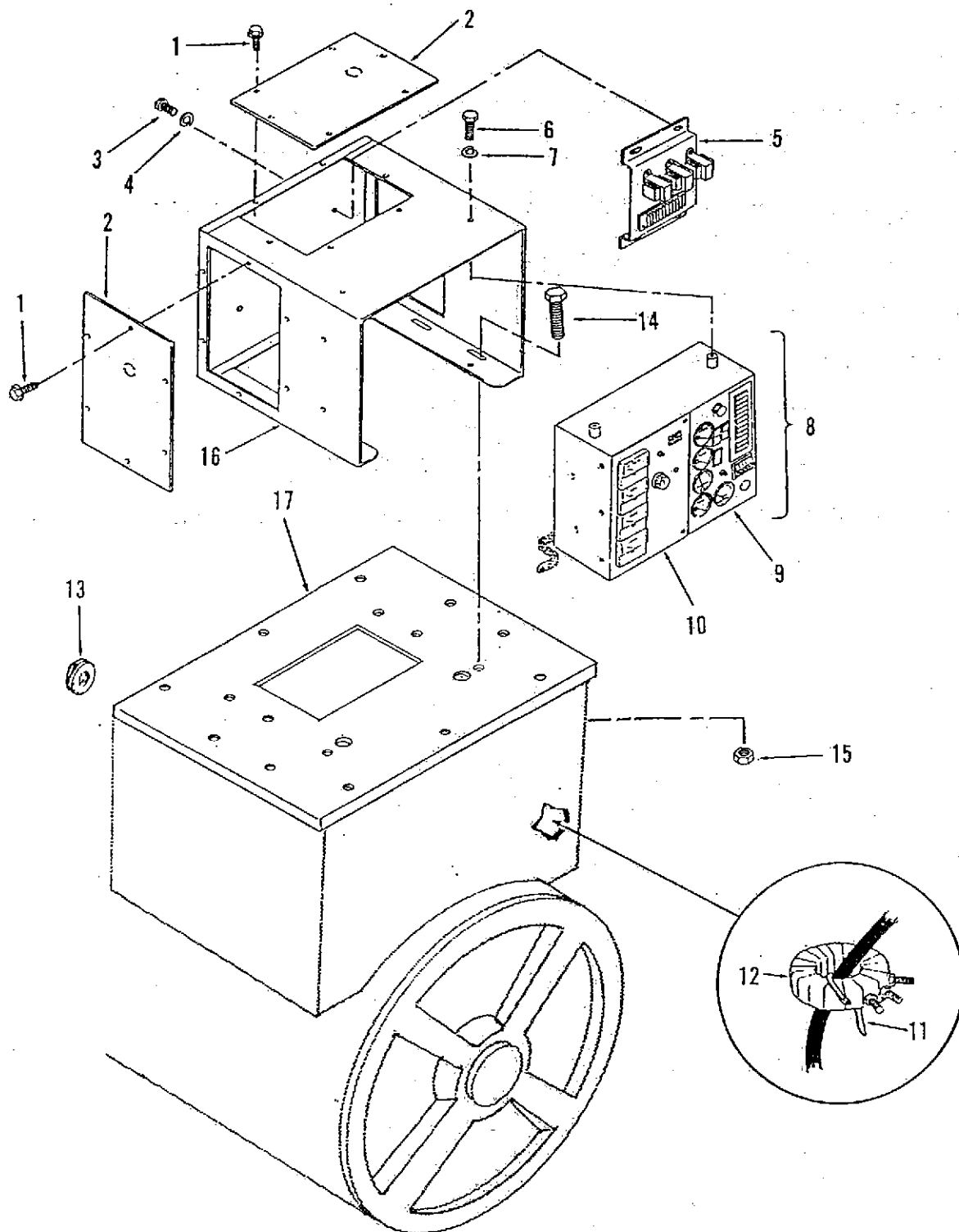
REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4			Rotor, Exciter
	249-0427	1	Frame 2, 3, 4 Generators
	249-0644	1	Frame 5, 6, 7 Generators
			Attaching Parts for Rotor
			Bolt - Select as Required
	249-0399	1	Frame 2, 3, 4 Generators
	249-0495	1	Frame 5, 6, 7 Generators
	249-0202	1	Washer, Lock (M10)
5	249-0313	1	Pin, Dowel

TABLE OF CONTENTS

SET CONTROLS

GENERATOR SET CONTROL (WITH HOUSING ENCLOSURE)	53
ENGINE CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)	55
GENERATOR CONTROL COMPONENTS (SETS WITH HOUSING ENCLOSURE)..	57
CONTROL HEATER (SETS WITH HOUSING ENCLOSURE)	58
POTENTIAL TRANSFORMER (SETS WITH HOUSING ENCLOSURE	59
WATTMETER (SETS WITH HOUSING ENCLOSURE)	61
GENERATOR SET CONTROL (WITHOUT HOUSING ENCLOSURE).....	63
ENGINE CONTROL COMPONENTS (SETS WITHOUT HOUSING ENCLOSURE)..	65
GENERATOR CONTROL COMPONENTS(SETS WITHOUT HOUSING ENCLOSURE)	67

Generator Set Control (With Housing Enclosure)



**Generator Set Control
(With Housing Enclosure)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0005	18	Screw, Self-locking - Hex (#10-32 x 1/2")	12			Transformer, Current - Reconnectible
2	NFS	3	Panel, Box - Control	302-1794-11	3		750/1500:5 Ratio; 1000kW & 1200kW Voltage Code H.
3	812-0156	4	Screw, Machine - Round Head (1/4-20 x 1/2")	302-1794-14	3		2000/4000:5 Ratio; 900kW Voltage Code Y, 1100kW Voltage Code Y 208VAC Only, 1000kW Voltage Code K.
4	850-0040	4	Washer, lock - Spring (1/4")	302-1785-05	3		2500:5 Ratio; 100kW Voltage Code Y 380 & 480 VAC Only, 1200kW Voltage Code K 380 & 480 VAC Only.
5	NFS	1	Transformer Assy, Potential (See Separate Page for Components)				NOTE: No CT Available for 1200kW Voltage Code K 208VAC!
6	800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")	13	508-0051	1	Grommet
7	850-0045	4	Washer, Lock - Spring (5/16")	14	870-0212	6	Nut, Self-locking - Hex
8	NFS	1	Control, Set (See item 9 & 10 for Components)	15	821-0018	6	Screw, Self-locking - Hex Head (1/4-20 x 5/8")
9	NFS	1	Control, Engine (See Separate Page for Components)	16	NFS	1	Housing, Control
10	NFS	1	Control, Generator (See Separate Page for Components)	17	NFS		Adapter, Housing to Terminal Box
11	332-0941	6	Tie, Cable				

NFS - Not For Sale

This exploded view diagram illustrates the assembly of a control panel. The main components include:

- Panel Backing (15):** The rear structural plate.
- Terminal Blocks (1, 2, 3, 4):** Located at the top, these blocks manage electrical wiring connections.
- Control Module (10):** A central unit with multiple input/output ports, shown with its mounting bracket (8) and screws (9).
- Switches (5, 6):** Toggle switches for manual control.
- Indicator Lights (27):** Four circular lamps for status indication.
- Gauges (28, 29, 30, 32):** Analog meters for monitoring pressure, temperature, and amperage.
- Display (31):** A digital readout for precise measurements.
- Mounting Hardware (16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 33, 34, 35, 36, 37, 38, 39, 40, 41):** Includes screws, nuts, washers, and brackets for securing all components to the panel.

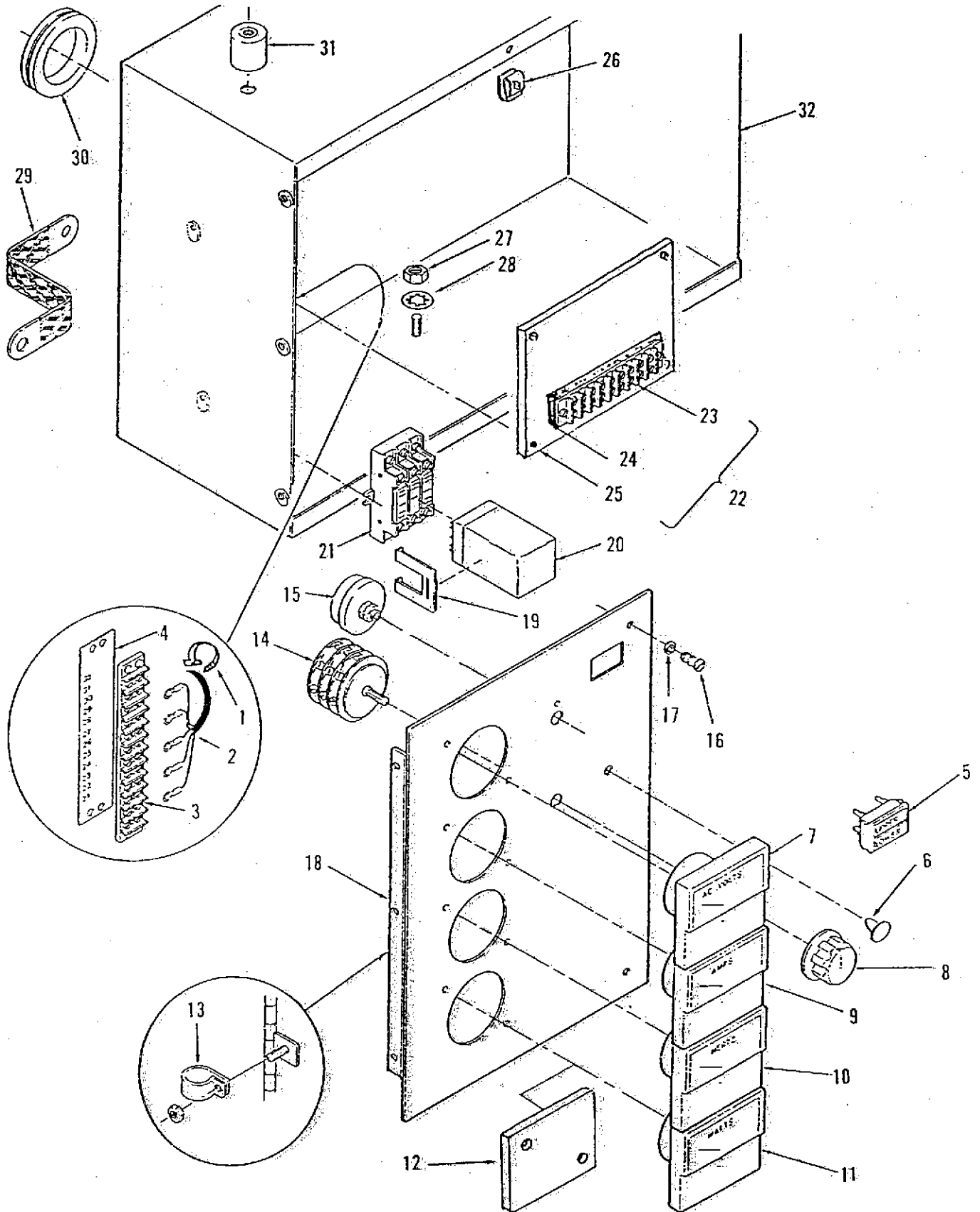
Two circular insets provide detailed views of specific assembly points: one shows a screw (35) being inserted into a bracket (16), and the other shows a cable (17) being routed through a channel in a component (16).

Engine Control Components (Sets with Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	24	Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")	17	322-0369-02	12	Lamp, Incandescent - 1/3 Watt 28 VDC
2	300-2899	1	Board, Time Delay, Start/Stop - 24 VDC (A15)	18	323-1310	1	Housing, 13 Pin (J3)
3			Board, Magnetic Sensor, Start Disconnect/Over Speed Sensor (A16)	19	322-0017	1	Contact, Pin
	300-2903	1	Standard	20	322-0361	1	Lamp, Incandescent - 28 VDC (DS11)
	300-2904	1	Precision	21	517-0131	1	Holder, Lamp
4	300-2906	1	Board, Over-Under Voltage Sensor - 24 VDC (A17)	22	303-0280	1	Plug, Button
5	300-2856	1	Board, Relay - 24 VDC (A13)	23	308-0785	1	Potentiometer (R11)
6	300-2863	1	Board, Relay - 24 VDC (A14)	24	308-0784	1	Switch, Push (S11)
7			Board, Engine Monitor (A11) (Includes Fuses and Connectors)	26	301-6257	1	Switch, Push (S12)
	300-2808	1	24 VDC, 2 Light	27	193-0250	3	Cover
	300-2812	1	24 VDC, 12 Light	28	193-0352	1	Resistor, Gauge (R12)
8	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)	29	193-0351	1	Gauge, Pressure - Oil (M11)
9	321-0231	1	Fuse, Cartridge - 15 Amp (F3)	30	302-1790	1	Gauge, Temperature - Water (M12)
10	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)	31	302-0885	1	Ammeter (M13)
11	323-1305	1	Connector, 8 Pin (P1)		815-0385	2	Meter, Totalizing - Time (M14)
12	323-1303	1	Connector, 6 Pin (P2)		870-0183	2	Screw, Machine - Round Head (#6-31 x 1/2")
13	323-1309	1	Connector, 13 Pin (P3)				Nut, Hex with ET Lockwasher (#6-32)
14	323-1307	1	Connector, 12 Pin (P4)	32	193-0330	1	Gauge, Temperature - Oil (M15)
15	NFS	1	Bracket, Mounting [301-8851]	33	302-1873-01	1	Tachometer (M16)
	821-0004	4	Screw, Self-locking - Hex Hd (#10-32 x 5/16")	34	517-0221	1	Plug, Button
16			Module, Indicator - Fault (Includes replaceable lamps, Harness with connector housing & contact pins)(A12)	35	332-0052	1	Clamp, Loop
	322-0358-02	1	24 VDC, 2 Light		870-0131	1	Nut, Hex with ET Lockwasher (#10-32 x 1/2")
	322-0360-02	1	24 VDC, 12 Light	36	NFS		Door, Control [301-9055-01]
	815-0385	2	Screw, Machine - Round Head (#6-32 x 1/2")	37	338-1817	1	Harness, Wiring - DC Meter (Includes Connector & Pins)
	870-0183	2	Nut, Self-locking - Hex (#6-32)	38	323-1308	1	Housing, 12 Pin (J4)
					323-1302	12	Contact, Pin
				39	338-2294	1	Harness, Wiring - Control to Engine (Includes Connectors and Pins)
				40	323-1304	1	Housing, 6 Pin
					323-1200	6	Contact, Pin
				41	323-1306	1	Housing, 8 Pin
					323-1200	8	Contact, Pin

NFS - Not For Sale

Generator Control Components (Sets with Housing Enclosure)

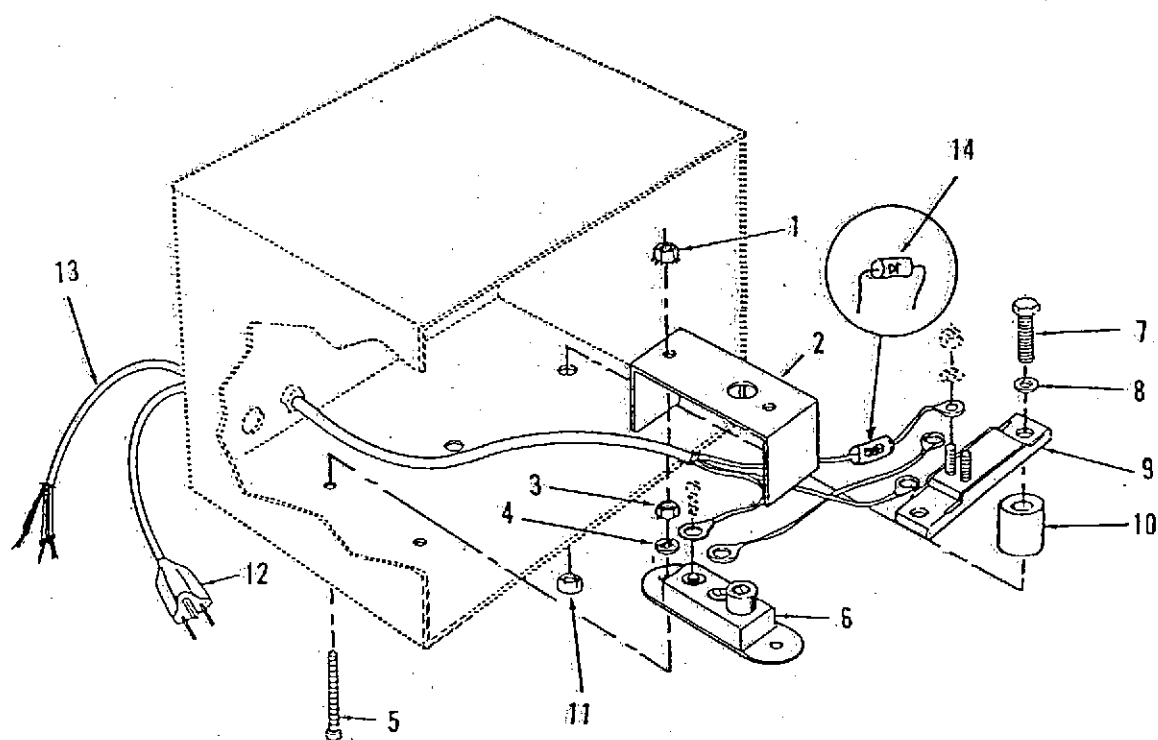


Generator Control Components (Sets with Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	332-1445	2	Tie, Cable	12	NFS	1	Cover, Meter Hole
2	338-1818	1	Harness, Wiring		815-0395	1	Screw, Machine - Round Head, Black (#6-32 x 1/2")
	338-1853	1	Control with Meters (Includes Terminal Block)		870-0183	2	Nut, Hex with ET Lockwasher (#6-32)
	812-0065	2	Control without Meters	13	332-0052	1	Clamp, Loop
			Screw, Machine - Round Head (#6-32 x 5/8")		870-0131	1	Nut, Self-locking - Hex with ET Lock Washer (#10-32)
3	332-0607	1	Block, Terminal (TB1)	14	308-0284	1	Switch, Rotary (S21)
4	332-2723	1	Strip, Marker	15	303-0261	1	Rheostat (R21)
5	322-0363	1	Light, Indicator - Dual (DS21, DS22)	16	406-0334	2	Clip, Fastener
6	517-0131	1	Plug, Button	17	406-0333	2	Stud, Fastener
7	302-1148	1	Voltmeter (M21)	18	NFS	1	Door, Control
	302-1753	1	Dual Scale 0-300/0-600V		821-0004	3	Screw, Self-locking - Hex (#10-32 x 5/16")
8	303-0032	1	Single Scale 0-750V	19	307-1987	2	Clip, Relay
9		1	Knob	20	307-1056	1	Relay, 24 VDC (K21)
			Ammeter (M22)	21	323-0804	1	Socket, Relay
	302-1734	1	Single Scale Voltage Code H 1000kW & 1200kW, 0-1500Amp		815-0544	2	Screw, Machine - Round Head with IT Lock Washer (#6-32 x 1/2")
	302-1799	1	Dual Scale Voltage Code Y 900kW, 0-1500/0-3000 Amp, 480 VAC Only.	22	NFS	1	Terminal Board Assembly
	302-1800	1	900kW, 0-2000/0-4000 Amp, 208 & 380 VAC, 1100kW 208 VAC Only.		812-0065	4	Screw, Machine - Round Head (#6-32 x 5/8")
	302-1736	1	Single Scale Voltage Code Y 1100kW, 0-2500 Amp, 380 & 480 VAC Only.	23	332-0751	1	Block, Terminal
			Dual Scale Voltage Code K 1000kW, 0-2000/0-4000 Amp, 208 & 380 VAC Only.		812-0066	2	Screw, Machine - Round Head (#6-32 x 3/4")
	302-1800	1	Single Scale Voltage Code K 1200kW, 0-2500 Amp, 380 & 480 VAC Only.	24	332-0853	1	Strip, Marker
	302-1736	1	NOTE: No Ammeter for 1200kW, 208 VAC.	25	NFS	1	Plate
10	302-1720	1	Meter, Frequency (M23)	26	406-0332	2	Receptacle, Fastener
11		1	Wattmeter (M24) (See Separate page for Components)	27	871-0015	1	Nut, Hex (1/4-20)
				28	853-0013	1	Washer, Lock - ET (1/4")
				29	337-0049	1	Strap, Electrical (Ground)
					800-0024	1	Screw, Cap - Hex Head (5/16-18 x 1/2")
					856-0008	1	Washer, Lock - EIT (5/16")
				30	508-0051	1	Grommet
				31	402-0527	2	Mount, Vibration
					800-0051	4	Screw, Cap - Hex Head (5/16-18 x 1/2")
					850-0045	4	Washer, Lock - Spring (5/16")
				32	NFS	1	Box, Control

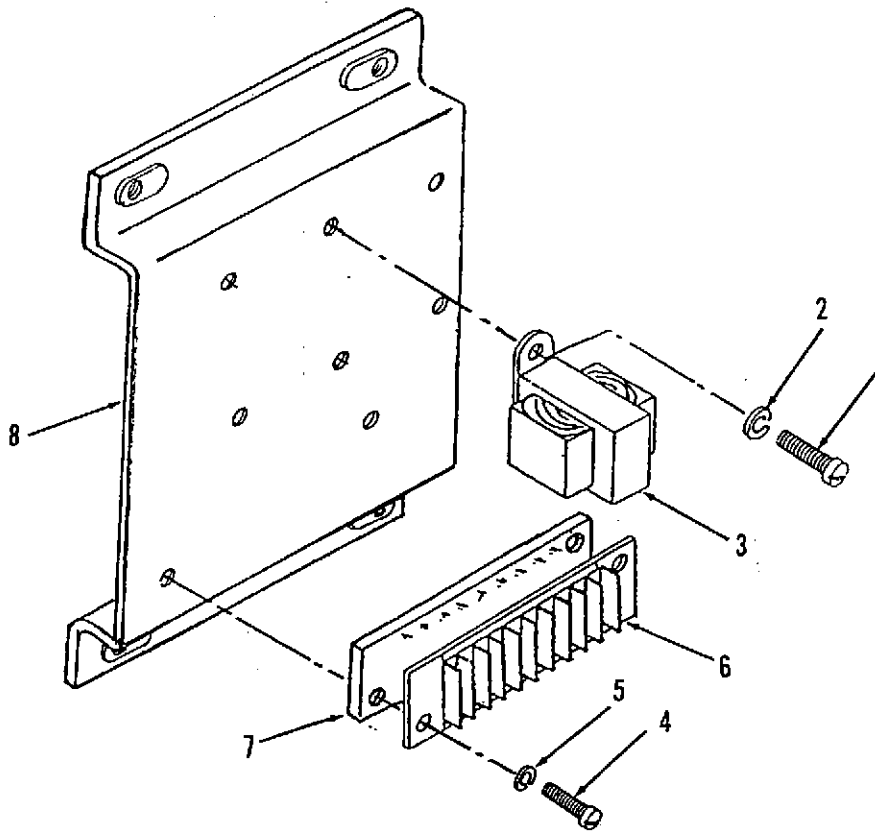
NFS - Not For Sale

Control Heater



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0183	2	Nut, Self-locking - Hex (#6-32)	9	333-0151	1	Heater, Electrical 120VAC
2	301-1886	1	Cover		333-0378	1	240VAC
3	860-0006	1	Nut, Hex (#6-32)	10	130-1107	2	Spacer
4	854-0006	2	Washer, Lock - IT (#6)	11	870-0257	2	Nut, Self-locking - Hex (5/16-18)
5	812-0070	2	Screw, Machine - Round Head (#6-32 x 1-1/4")	12	335-0161	1	Cable, Electrical (120VAC Application)
6	309-0128	1	Thermostat, Adjustable	13	338-2121	1	Harness Wiring with Diode, less plug (240VAC Application)
7	800-0034	2	Screw, Cap - Hex Head (5/16-18 x 2-1/4")	14	357-0013	1	Diode
8	526-0113	2	Washer, Flat (5/16")	15	98-3232	1	Decal, Warning - Shock Hazard (Not Illustrated)

Potential Transformer

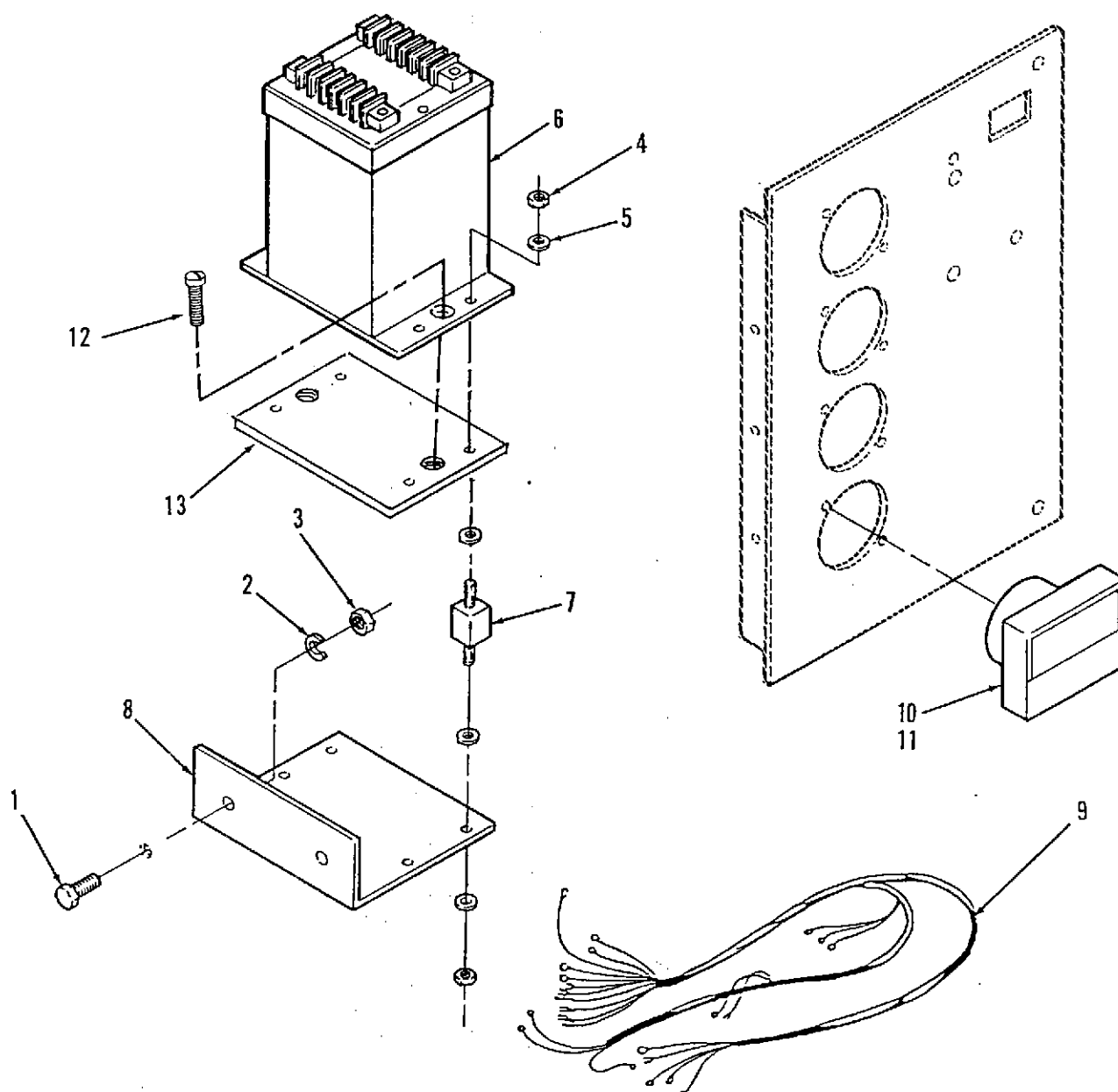


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	812-0079	6	Screw, Machine - Round Head (#8-32 x 1/2")
2	850-0025	6	Washer, Lock - Spring (#8)
3	315-0642	3	Transformer, Potential
4	812-0077	2	Screw, Machine - Round Head (#8-32 x 3/8")

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	850-0025	2	Washer, Lock - Spring (#8)
6	332-2562	1	Block, Terminal (10 Place)
7	332-2563	1	Strip, Marker
8	NFS	1	Bracket, Mounting

NFS - Not For Sale

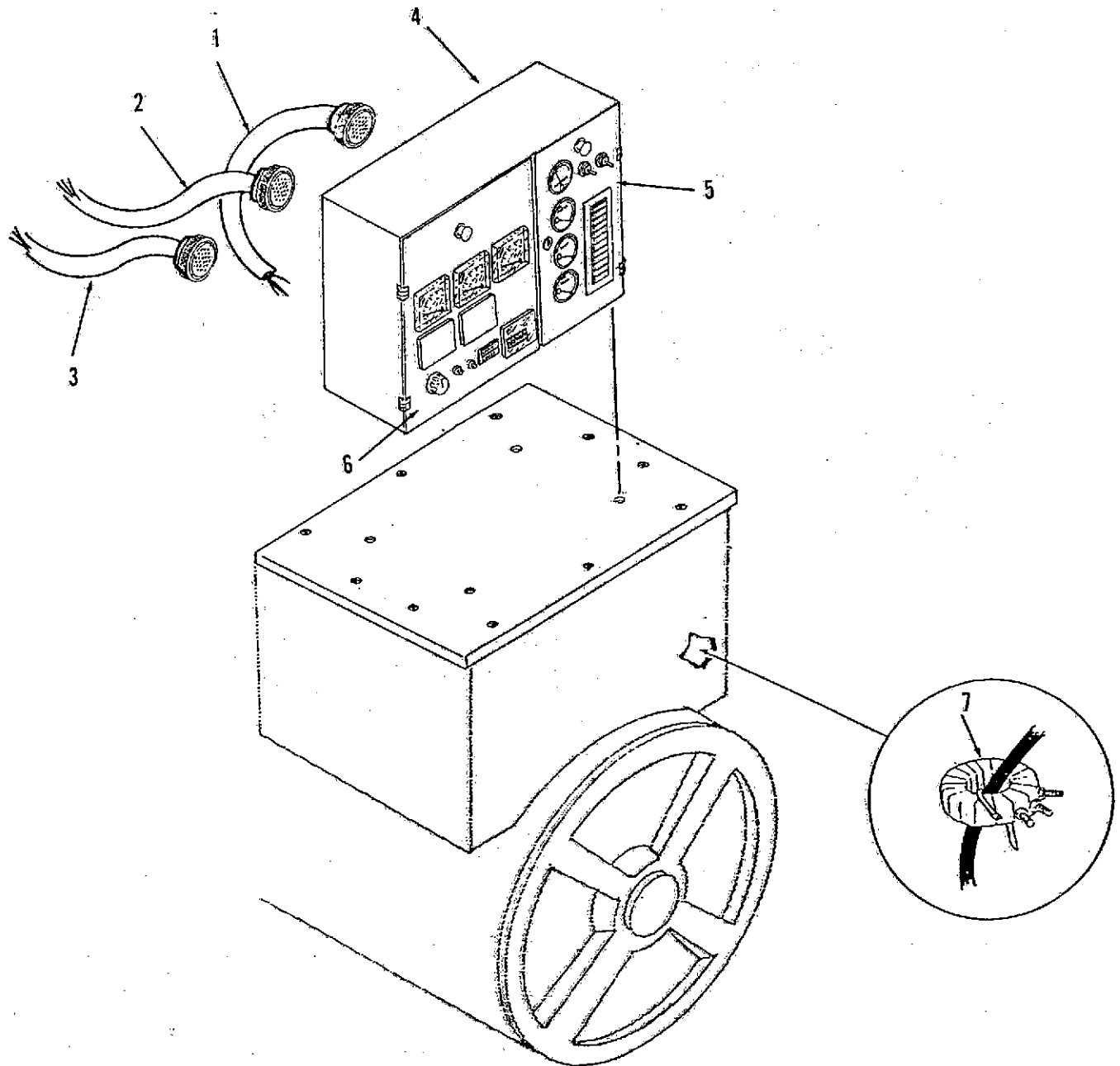
Wattmeter (Sets with Housing Enclosure)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	821-0017	2	Screw, Cap - Hex Head (5/16-18 x 1/2")
2	850-0045	2	Washer, Lock (5/16)
3	862-0014	2	Nut, Hex (5/16-18)
4	860-0008	8	Nut, Hex (#8-32)
5	856-0002	16	Washer, Lock - ET (#8)
6	302-1833-01	1	Transducer, Watt
7	402-0354	4	Mount, Shock

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
8	301-6987	1	Bracket, Mounting
9	338-1936	1	Harness, Wiring
10	302-1722	1	Wattmeter (Less Dial)
11	302-1721-17	1	Dial, Wattmeter
			Scale 0-1200 kW
12	813-0102	2	Screw, Machine - Round Head (#10-32 x 3/8")
13	319-0030	1	Plate, Support - Transducer

Generator Set Control
(Without Housing Enclosure)

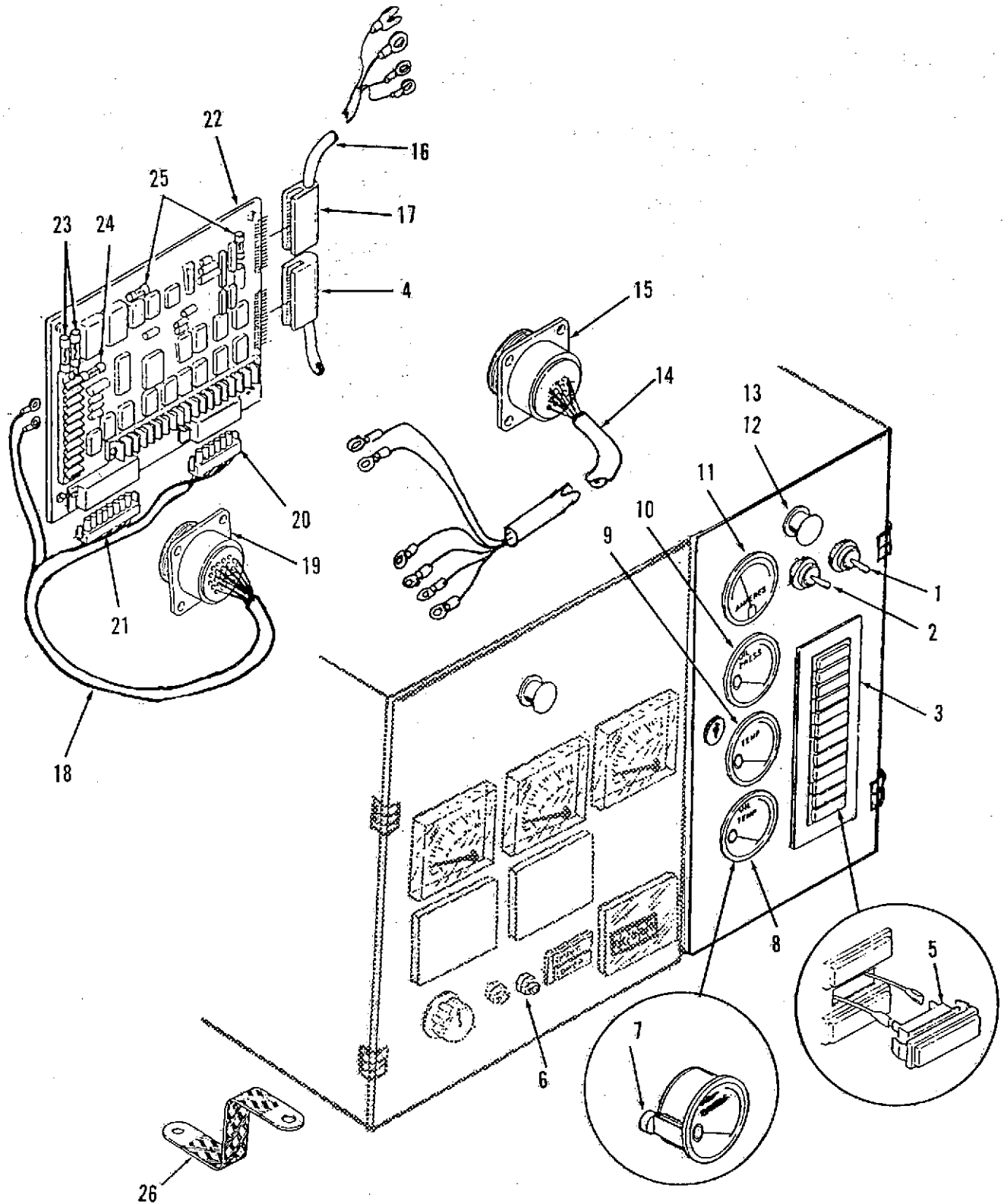


**Generator Set Control
(Without Housing Enclosure)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-2200-01	1	Harness, Wiring - Control to Generator (Includes a connector Housing)	7			Transformer, Current (Select As Applicable)
	323-1135	1	Housing, Connector (J21)	302-1785-01	3		1200:5 Ratio
	323-1193	4	Contact, Pin	302-1785-02	3		1500:5 Ratio
	323-1194	10	Contact, Pin	302-1785-03	3		1600:5 Ratio
2	338-2199-01	1	Harness, Wiring - Control to Governor (Includes a connector housing)	302-1785-04	3		2000:5 Ratio
	323-1135	1	Housing, Connector (J12)	302-1785-05	3		2500:5 Ratio
	323-1193	4	Contact, Pin	302-1785-06	3		2000:5 Ratio (380V Only)
	323-1194	10	Contact, Pin	302-1785-07	3		3000:5 Ratio
3	338-2194-01	1	Harness, Wiring - Control to Engine Components (Includes a connector housing)	302-1785-08	3		4000:5 Ratio
	323-1206	1	Housing, Connector (J11)	302-1785-09	3		5000:5 Ratio
	323-1194	20	Contact, Pin	302-1786-01	3		500/1000:5 Ratio
4	NFS	1	Control, Set (See item 5 & 6 for Components)	302-1786-02	3		600/1200:5 Ratio
	402-0527	4	Mount, Vibration	302-1786-03	3		750/1500:5 Ratio
	800-0051	8	Screw, Cap - Hex Head (5/16-18 x 1/2")	302-1786-04	3		800/1600:5 Ratio
	850-0045	8	Washer, Lock - Spring (5/16")	302-1786-05	3		900/1800:5 Ratio
5	NFS	1	Control, Engine (See Separate	302-1786-06	3		1000/2000:5 Ratio
6	NFS	1	Control, Generator (See Separate Page for Components)	302-1786-07	3		1200/2400:5 Ratio
				302-1786-08	3		250/500:5 Ratio
				302-1786-09	3		300/600:5 Ratio
				302-1786-10	3		400/800:5 Ratio
				302-1786-11	3		375/750:5 Ratio
				302-1786-12	3		75/150:5 Ratio
				302-1786-13	3		100/200:5 Ratio
				302-1786-14	3		150/300:5 Ratio
				302-1786-15	3		200/400:5 Ratio
				302-1786-16	3		1500/3000:5 Ratio

NFS - Not For Sale

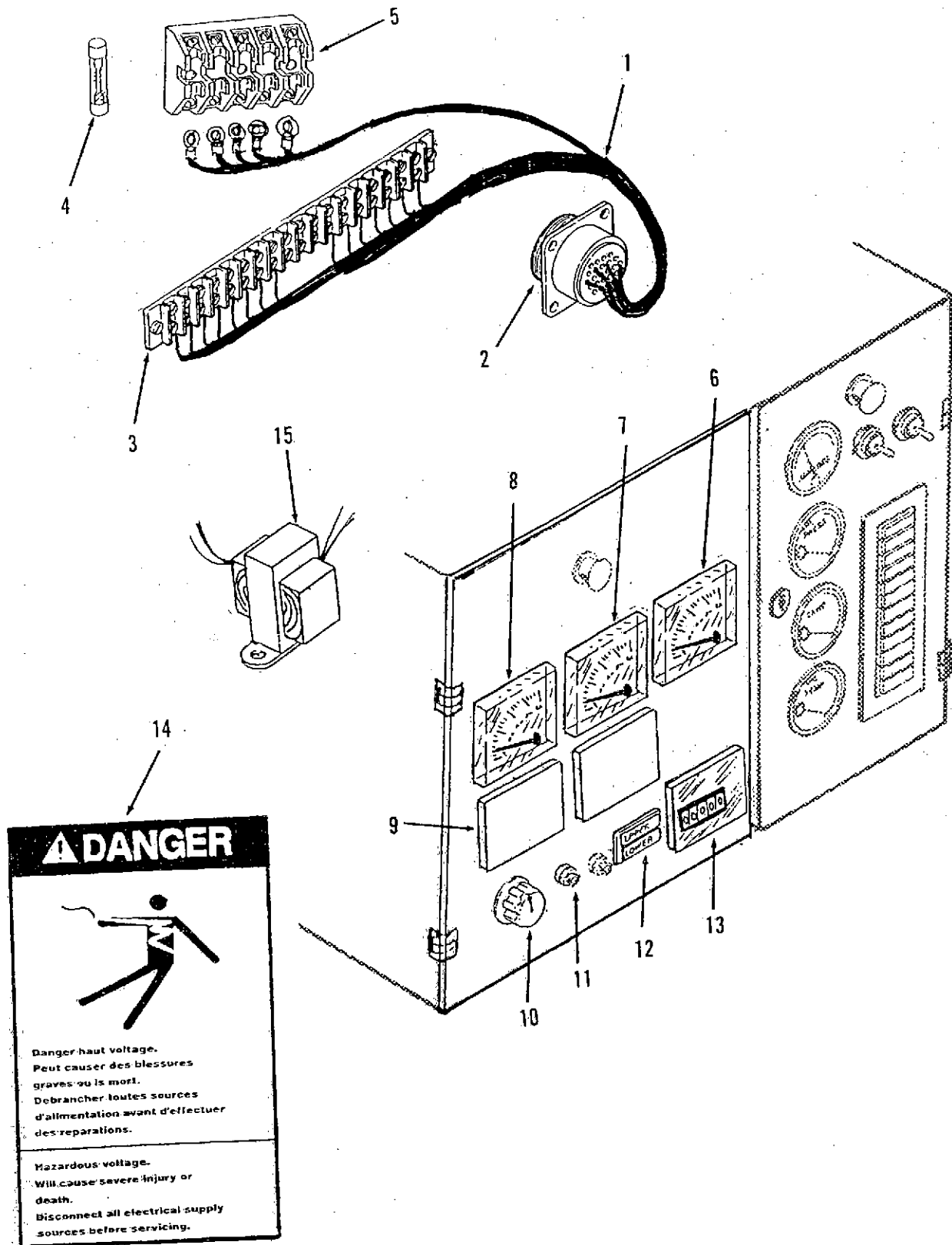
Engine Control Components (Sets without Housing Enclosure)



Engine Control Components (Sets without Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	308-0625	1	Switch, Push (S12) [Run/Stop/Remote]	15	323-1134	1	Housing, Connector (P12)
2	308-0900	1	Switch, Push (S11) [Reset/Panel Light]		323-1192	4	Contact, Socket
3			Module, Indicator - Fault (Includes Harness with a Connector Housing & Contact Pins, Replaceable Lamps) (A12)		323-1195	10	Contact, Socket
	322-0358-02	1	24 VDC, 2 Light	16	323-1190	2	Key
	322-0360-02	1	24 VDC, 12 Light		338-1817	1	Harness, Wiring - Engine Monitor Board to Meters (Includes Connector Housing)
	815-0385	2	Attaching Parts for Module Screw, Machine - Round Head (#6-32 x 1/2")	17	323-1308	1	Housing, Connector (J4)
	870-0183	2	Nut, Self-locking - Hex (#6-32)		323-1302	15	Contact, Pin
4	323-1310	1	Housing, Connector (J3)	18			Harness, Wiring - Engine to Engine Monitor Board (Includes Connector Housings, Terminals and Contacts)
	323-1302	13	Contact, Pin		338-2241-01	1	Control with 2 Light Module
5	322-0369-02	1	Lamp, Incandescent - 1/3 Watt 28 VDC		338-2200-01	1	Control with 12 Light Module
6	303-0289	1	Rheostat - Speed Control (R23)	19	323-1207	1	Housing, Connector (P11)
7	193-0250	3	Resistor, Gauge (R11,R12,R15)		323-1195	22	Contact, Socket
8	193-0330	1	Gauge, Temperature - Oil, 12 VDC (M15) or		323-1190	1	Key
	302-1715	1	Tachometer (M16) or	20	323-1304	1	Housing, Connector (J2)
	302-1723	1	Gauge, Blank		323-1200	6	Contact, Pin
9	193-0351	1	Gauge, Temperature - Water, 12 VDC (M12)	21	323-1306	1	Housing, Connector (J1)
10	193-0352	1	Gauge, Pressure - Oil, 12 VDC (M11)		323-1200	8	Contact, Pin
11	302-1790	1	Ammeter (M13)	22			Board, Engine Monitor (A11) (Includes Fuses)
12	322-0017	1	Lamp, Incandescent - 28 VDC (DS10,DS11)		300-2808	1	24 VDC, 2 Light
13	322-0361	2	Holder, Lamp		300-2812	1	24 VDC, 12 Light
14			Harness, Wiring - Governor to Speed Control & Tachometer (Includes Connector Housing)	23	321-0270	2	Fuse, Cartridge - 20 Amp (F1, F2)
	338-2279-01	1	Control with 2 Light Module	24	321-0231	1	Fuse, Cartridge - 15 Amp (F3)
	338-2290-01	1	Control with 12 Light Module	25	321-0094	2	Fuse, Cartridge - 5 Amp (F4, F5)
					815-0544	4	Attaching Parts for Module Screw, Machine - Round Head With IT Lock Washer (#6-32 x 1/2")
				26	337-0049	1	Strap, Electrical - Ground

Generator Control Components (Sets without Housing Enclosure)



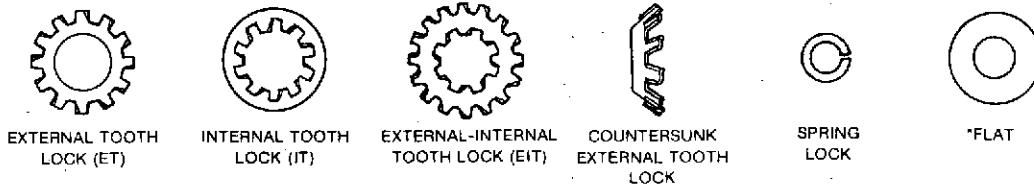
Generator Control Components (Sets without Housing Enclosure)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1			Harness, Wiring (Includes Connector and Terminal Strip)		302-1839-09	1	0-300/0-600 Amp
					302-1839-10	1	0-400/0-800 Amp
					302-1839-11	1	0-375/0-750 Amp
	338-2280-01	1	Sets with 12 Lead Generator		302-1839-12	1	0-75/0-150 Amp
	338-2281-01	1	Sets with 6 Lead Generator		302-1839-13	1	0-100/0-200 Amp
2	323-1134	1	Housing, Connector (P21)		302-1839-14	1	0-150/0-300 Amp
	323-1192	4	Contact, Socket		302-1839-15	1	0-200/0-400 Amp
	323-1195	10	Contact, Socket		302-1839-16	1	0-1500/0-3000 Amp
	323-1190	1	Key		302-1839-17	1	0-2000/0-4000 Amp
3		1	Terminal, Strip (18 Place)		302-1840-01	1	0-1200 Amp
4	321-0293	5	Fuse F1 thru F5		302-1840-02	1	0-1500 Amp
5	321-0294	1	Holder, Fuse		302-1840-03	1	0-1600 Amp
6	302-1842	1	Meter, Frequency (M23)		302-1840-04	1	0-2000 Amp
7	302-1841-03	1	Voltmeter (M21)		302-1840-05	1	0-2500 Amp
8			Ammeter (M22)		302-1840-07	1	0-3000 Amp
			Dual Scale		302-1840-08	1	0-4000 Amp
	302-1839-01	1	0-500/0-1000 Amp		302-1840-09	1	0-5000 Amp
	302-1839-02	1	0-600/0-1200 Amp	9	302-1849	2	Meter, Blank
	302-1839-03	1	0-750/0-1500 Amp	10	308-0883	1	Switch, Rotary (S21)
	302-1839-04	1	0-800/0-1600 Amp	11	303-0287	1	Rheostat (R21)
	302-1839-05	1	0-900/0-1800 Amp	12	322-0363	1	Light, Indicator - Dual (DS21, DS22)
	302-1839-06	1	0-1000/0-2000 Amp				
	302-1839-07	1	0-1200/0-2400 Amp	13	302-1850	1	Meter, Time Totalizing (M14)
	302-1839-08	1	0-250/0-500 Amp	14	98-5724	2	Decal (Warning)
		-cont-		15	315-0664	3	Transformer, Potential (T21 - T23)

HARDWARE IDENTIFICATION

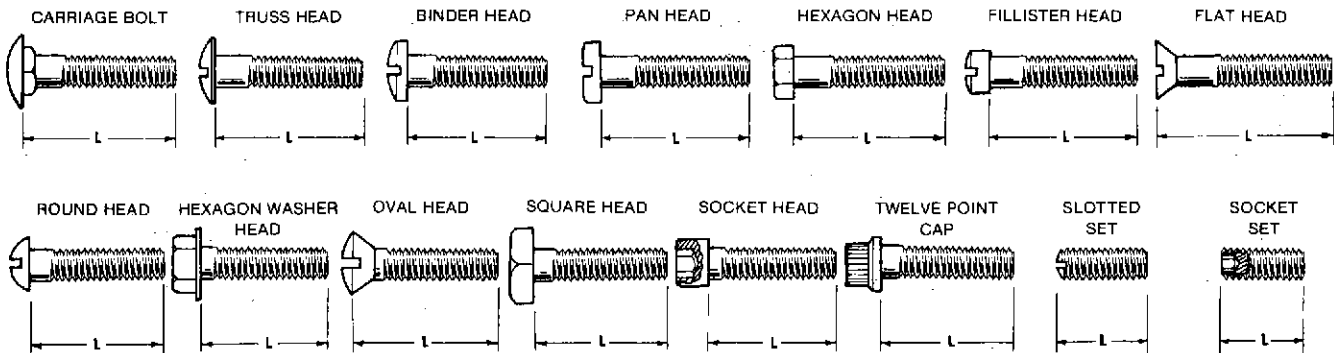
Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

WASHER TYPES



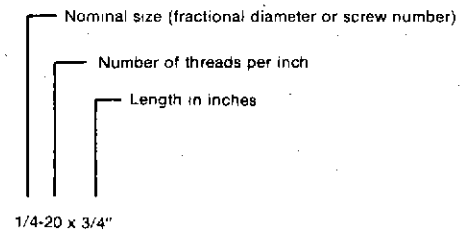
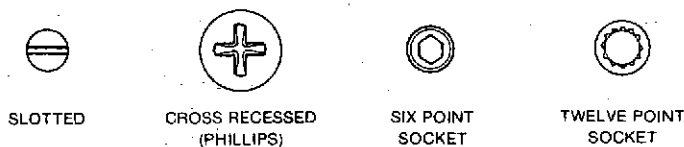
* - Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

BOLT AND SCREW TYPES



L - Measure length between these points.

INTERNAL DRIVE TYPES



NUT TYPES





Onan Corporation
1400 73rd Avenue N.E.
Minneapolis, Minnesota 55432

Telephone: (612) 574-5000
Telex: 275477
Cable: ONAN

Redistribution or publication of this document
by any means, is strictly prohibited.